

Students are always our priority!

GUIDE FOR STUDENTS

www.ceps.edu.ba

Dear future students of "CEPS – Center for Business Studies" High College

Higher education represents a "living" system that is constantly changing and upgrading in accordance with economic, technological and scientific development of society, as well as cultural and other changes that are taking place both locally and regionally, as well as globally, therefore, we established a higher education institution "CEPS – Center for Business Studies" High College in Kiseljak to support the system.

The publication in front of you, entitled "Guide for Students", introduces you to the possibilities of studying at "CEPS – Center for Business Studies" High College in Kiseljak and the life of the academic community.

"Center for Business Studies" High College was founded in 2010 at the business address Rauševac 2, in Kiseljak, and in 2013 the abbreviation "CEPS" was added to the name of the higher education institution. Due to increase in the number of students it was necessary to secure additional space, and increase the work capacity of this institution, and we did it. We provided a new office building in the center of Kiseljak at Josipa Bana Jelačića b.b., in which the school operates under the name College "CEPS – Center for Business Studies" in Kiseljak (hereinafter: the "CEPS" College).

The purpose of establishing "CEPS" College is the transmission of scientific knowledge through experts' research, scientific cooperation and education in the areas covered by study programs which are an integral part of this institution, namely: Transport (with the fields of Road transport and Railway transport); Business economics (with the fields of study: Accounting and finance, Management and Management of public sector and administration); Security studies (with a field of study: Criminalistics), study of Work safety and fire protection (with the fields of study: Work safety and Fire protection) and study program: Energetics (with the fields of study: Energy management and energy efficiency, Renewable energy sources, Energy plant maintenance and Thermotechnics).

The integration of knowledge in certain areas and fields (specific areas) in higher education is possible by applying new concepts of systematic methodology and accompanying information support of that process). In a globalized information society, interdisciplinary and transdisciplinary connections of all knowledge and skills from a number of different scientific disciplines are necessary in order to achieve knowledge synergy.

"CEPS" High College was founded as a continuous source of scientific and teaching activities, as well as innovative technologies and services necessary in national economic sector for development and growth, and the full-time and part-time study programs are conducted in accordance with the Bologna process.

By choosing "CEPS" High College you have made a good decision in your life, because you've chosen the quality, you've chosen those who know, who have proven themselves, who achieved a remarkable level of quality in private higher education through lifelong learning programs in "Grupa Centar" for many years, and this level of quality is accessible only to those whose success is based on dedication and commitment.

If you choose to continue your studies, that is, if your decision is based on the wish to succeed in life, then choose one of the following study programs as either full-time or part-time students:

I. Study program: Transport

The field of study:

- Road transport
- Railway transport

II. Study program: Business economics

The fields of study:

- Finance and accounting
- Management
- Management of public sector and administration

III. Study program: Security studies The field of study: **Criminalistics**

IV. Study program: Energetics

The fields of study:

- Energy management and energy efficiency
- Renewable energy sources
- Energy plant maintenance
- Thermotechnics

V. Work safety and fire protection study program

The fields of study:

- Work safety
- Fire protection

VI. Health studies

The fields of study:

- Nursing
- Sanitary Engineering
- Physiotherapy
- Geriatric Studies

VII. Information technology

The field of study:

- Information technology

VIII. Business economics

The field of study:

- Management

I. Undergraduate study lasts for three academic years (6 semesters), upon completion, a student acquires a total of 180 ECTS credits.

II. Undergraduate study lasts for four academic years (8 semesters), upon completion, a student acquires a total of 240 ECTS credits.

Thank you for your trust and welcome!

The administration of College "CEPS – Center for business studies" in Kiseljak

About us

The idea of establishing "CEPS" High College, as an institution based on the unprofitable principles, was primarily born in order to realize the need for education of highly qualified experts who will successfuly respond to modern business challenges and increase the quality level in higher entrepreneurial education in Bosnia and Herzegovina.

Our long-term mission is to obtain results with a lot of effort, knowledge and teamwork of the staff and students of this institution, so that the majority of the students in our institution represent the best of what this country has to offer.

Our own education is the best, and often the only possible way that guarantees us success and satisfaction in business life, that is the knowledge we acquire makes us richer and it is our best invesment at the same time. By studying and continuously improving we develop and achieve the objectives and we set up the new ones.

This was our guide when we set out to establish a higher education institution, aware that things that remain behind us are truly valuable, diplomas, research papers and most importantly, priceless human potential of our highly-educated citizens, the only true guarantee of our successful future.

Starting from the actual state and the market needs of our economy, we made study programs focused on acquiring practical knowledge that will enable quick and active involvement into the business community. Small group work in modern and well-equipped classrooms and highly developed information system will enable the students a constant communication with our experienced and excellent lecturers, many of whom have successfully won the market competition.

Our students will have top quality literature, interactive teaching, flexible attendance time, as well as a wide selection of additional content such as counseling for students or organized sports activities, with the aim of faster and more successful integration into economic reality.

Legal basis of our work

Ministry of Education, Science, Culture and Sports of the Central Bosnia Canton, issued a decision on the approval for the establishment of 'CEPS – Center for Business Studies' High College in Kiseljak from the beginning of the academic year 2010/2011, No. 03-38-25/10-2, on 12 May 2010.

A decision to approve the establishment and operation of the higher education institution "Center for business studies" High College based in Kiseljak, at Rauševac 2, from the 2010/2011 academic year, No. 03-38-2/10-6, on 29 June 2010, was issued by Ministry of Education, Science, Culture and Sports of the Central Bosnia Canton, by the same decision "Center for business studies" High College in Kiseljak entered in the Registry of higher education institutions of the relevant ministry under the number 022, on page 00022.

The decision to commence activities and carry out standardized classified activities of "Center for business studies" High College in Kiseljak, No. 03-38-25/10-8 from 28 July 2010, was issued by Ministry of Education, Science, Culture and Sports of the Central Bosnia Canton.

The government of the Central Bosnia Canton gave its consent for the establishment of the "Center for Business Studies" High College in Kiseljak, No. 01-02-289/2010 from 24 August 2010.

"Center for business studies" High College in Kiseljak entered into the court registry of the Municipal court in Travnik, decision No.: 051-0-Reg-10-000442 from 8 September 2010, MBS: 51-05-0079-10.

"CEPS – Center for Business Studies" High College in Kiseljak received a status change and the introduction of new study programs by Ministry of Education, Science, Culture and Sports of the Central Bosnia Canton, decision No.: 03-38-13/13 from 25 February 2013.

Mission

The mission of "CEPS" High College is to be a modern institution, that continuously adjusts the program to labor market needs and processes in national, European and global economy, recognizing the needs and trends, and turning students into perfectly educated experts who are able to deal with the current and future challenges.

Our mission is to develop educational program that will motivate the students to recognize their capabilities and direct them toward education, thereby achieving their own ambitions and working for the benefit of the entire community.

Also, the mission of the High College is to create appropriate professional conditions that will enable quality education of personnel for work in the following areas: Transport (with the fields of study Road transport and Road transport); Business economics (with the fields of study: Accounting and finance, Management and Management of public sector and administration); Security studies (with the field of study: Criminalistics); Work safety and fire protection studies (with the fields of study: Work safety and Fire protection); study program: Energetics (with the fields of study: Energy management and energy efficiency, Renewable energy sources, Energy plant maintenance and Thermotechnics).

To this end, "CEPS" High College will use all available domestic and foreign sources of knowledge and profession, thus providing the students with adequate knowledge.

The mission of "CEPS" High College is not just to make excellent experts or capable management personnel, but also ethical and highly educated people who will lead the way in their working and living environment.

By combining scientific work and educational services, guided by the needs of the environment and our service users, we have created a high-quality curriculum related to undergraduate studies.

Through continuous professional development and research, we create a dynamic educational community focused on continuous quality improvement of the educational process.

Our aim is to provide our students with excellent knowledge and make leaders and experts, who are able to cope with new challenges in both the private and public sector.

By using methodology applied in their work, the teaching staff of "CEPS" High College encourage students to work in teams, and develop students' capacity for innovative thinking, an innovative approach to problems, the capacities to implement the latest technology in the respective fields.

Our basic mission for the establishment of "CEPS" High College was to enable our students to develop the ability to communicate effectively and to work efficiently with the users of services that they also provide to the work collective, both verbal and written, by using proper terminology, and to understand the importance of the need for lifelong learning-education.

Vision

"CEPS" High College was conceived as an institution for higher education and research in the area of economic and transport sciences, which will be open to students and scientists, and will provide higher education services of the highest quality.

The vision of "CEPS" High College is based on the idea of making this High College the leading college of applied studies in the region recognized for qualities of its graduates, and the primary goal of business in the coming period must be the maintenance of the work quality in all aspects.

The modern "CEPS" High College that we have and that must meet the requirements of a new time, requires high quality and adaptable personnel, both teaching and non-teaching personnel, ready to improve themselves every day. When it comes to the resources of "CEPS" High College, it is necessary to continue good practice in supporting and financing of all forms of professional development of teachers and associates.

"CEPS" High College aims to develop an optimal model of professional studies and must continue to insist on good connections, contacts and cooperation with the economic environment.

"CEPS" High College, modeled after European Colleges of this kind, has signed a number of agreements on business cooperation, which have already been concretized through joint projects, the providing of various services of the College, the participation of companies in the changes and improvement of study programs, as well as professional practice and the selection of personnel – our graduates by the economic operators.

Strategy

We set the ultimate goal of our growth at the beginning, we do not want to do business, by offering a large number of study programs in to order to have something for everyone, we do not want to join various consortiums, corporations, interest groups in any form, we do not want to be seemingly great, strong, powerful, but we want to be recognized for our excellence and quality, our idea of success is quality, not quantity.

Aware of our work responsibilities, we educate experts in the fields of our activity, and we planned our work on a healthy basis, so we only recognize and value expertise. Therefore, we wouldn't like it to look like unambitious, but the strategy set at the beginning is to act in higher education from the first degree in accordance with positive legal regulations, that is 180 or 240 ECTS credits in accordance with the Bologna process. We built all preconditions to do this well and responsibly, which was approved by the decision of the Ministry of education, science, culture and sports of the Central Bosnia Canton.

"CEPS" High College opted for the strategy of quality assurance and adopted the document the Regulations on quality, we introduced a quality management system to achieve the main aims of the adopted quality policy – a high level of education service quality with the satisfaction of the users – the students and environment, quality in all phases of business processes and the development of organizational culture of quality, with continuous improvement of employees and constant communication with the environment.

Objectives of the action

In order to achieve short-term and long-term objectives, "CEPS" High College chose the strategy of the following, clearly defined, determinants:

- the creation and improvement of the study programs that will with the contents and methods best suit different needs of the labor market for modern educated business professionals,
- the opening of the branch offices in the region,
- continuing education and training of employees,
- continuous modernization of work organization and work equipment,
- the coordination of spatial capacity with the identified labor market needs and the planned number of attendants of the studies,
- the application of modern methods of knowledge transfer in order to achieve the highest possible quality of teaching using all available sources, modeled after the most successful business schools in the world; for this purpose, the High College will enable the students to gain practical experience through visits to renowned companies in BiH and abroad, the lectures held by top professors, student exchanges and additional seminars, in accordance with the interests of the students in specific topics,
- constant two-way communication with the students, lectures, seminars, exercises, individual
 consultations and the ones via the Internet and work in modern and well-equipped IT labs; In this
 way, "CEPS" High College wants to improve the education in order to create experts in the fields

- for which it is registered, the experts who will be able to compete side by side with the students from prestigious higher education institutions.
- Flexibility as a part of continuous evaluation of educational processes in accordance with the students' interests and wishes. "CEPS" High College enables conditions for optimal transfer of knowledge and skills; by communication between the High College personnel and the students, which encourages mutual understanding and trust, and students become active participants in their own education, which is especially valuable for communication of the students with future employers, and also for building self-confidence and revealing personal values.

The Bologna process

The Bologna declaration is a joint declaration of the European Ministers of Education signed in 1999 in Bologna, and refers to the reform of the higher education system in Europe, which has become known as the Bologna process. Bosnia and Herzegovina signed the Bologna declaration in 2003.

The objectives of the Bologna declaration and the Bologna process are reflected in the following:

- The adoption of the system of easily recognizable and comparable degrees, among other things, by the introduction of the Diploma Supplement, in order to promote employability of European citizens and the international competitiveness of the European system of higher education;
- Adoption of the system based on two main cycles, undergraduate and graduate. Enrolment to the second cycle requires successful completion of the first cycle that lasts at least three years;
- The degree awarded after the first cycle should be in compliance with an appropriate level of quality at the European labor market. The second cycle leads to the master's and/or doctoral degree, as is the case in many European countries;
- Establishment of a system of credits, such as the ECTS, as an appropriate means of promoting the
 most widespread student mobility. The credits can be acquired outside the higher education
 system, including the lifelong learning, provided that they are recognized by the university that
 accepts the student.
- Promotion of mobility by overcoming obstacles to free movement, with special consideration for: students, in access to study and appropriate services; teachers, researchers and administrative staff in recognition and valorization of time spent in Europe researching, teaching or training, without prejudicing statutory rights;
- Promotion of European cooperation in quality assurance aimed at developing comparable criteria and methodologies;

- Promoting the necessary European dimension in higher education, especially in the development of curricula, inter-institutional cooperation, mobility programs and integrated programs of study, education and research.

European Credit Transfer System

The European Credit Transfer System was launched in 1989 as a pilot-project. 144 university institutions from the countries of the European Community were involved in the project.

The aim of the project was research and development of the system for mutual academic recognition. Before the ECTS was launched, some European universities began to apply credits as relevant and recognizable coefficient of the student workload.

Each credit was a kind of "currency" that allowed measurement of the results of learning achieved at a given time and at a given level and in combination with grades. A credit signified a certain number of hours that a student needs to perform certain task.

The student workload includes the total time that a student has to spend to successfully master the material.

Therefore, not only time spent in lectures, seminars, fieldwork, exercises and consultations are taken into account, but also time spent for studying, i.e. independent learning, data processing, testing, and other ways of knowledge assessment.

The scoring system is based on the fact that every form of teaching, as part of existing courses, is separately scored, examined and graded.

After a student successfully 'complete' a subject, the corresponding scores are added. It is important to note that credits do not replace grades.

They are only indicators of workload. Grades are indicators of knowledge, and credits are indicators of effort.

Application of the credit system, which was based on such a workload coefficient helped in determining the student workload. In addition, the starting point was the fundamental principle that "working week" of students consists of 40 hours.

At this point, a small number of universities decided to introduce the credit system, but they did not apply the same credit value for mentioned working week of 40 hours.

So, different "currencies" appeared. That means: adoption of the system of easily recognizable and comparable academic and professional degrees as well as the introduction of the Diploma Supplement for easier and faster employment and international competitiveness, adoption of a unique system of three study cycles: undergraduate, graduate and postgraduate (specialist and doctoral), the introduction of the credit system (ECTS), the promotion of mobility and the overcoming of obstacles to free movement of students and teachers, the establishment of a national system of quality control and quality assurance and the promotion of European cooperation in this segment, the promotion of the necessary European dimension in higher education.

By launching the pilot-project, mentioned at the beginning, the new ECTS credit was supposed to be introduced as a "convertible currency". It was accepted that one semester carries 30 credits, and one year carries 60 ECTS credits.

The new system should facilitate mobility, credit accumulation and transfer between higher education institutions and the recognition of time spent studying abroad.

Advantages of the new credit system

The new credit system is designed to develop the transfer of credits that would be a recognized currency for academic recognition in all European universities.

In addition, the ECTS should enable easy recognition of the study programs. Thus, the students are offered wider possibilities for enrolment, freedom to choose optional subjects, student mobility is promoted, the teaching activity is improved. With the introduction of the new ECTS credit system, new possibilities open up for higher education institutions in Bosnia and Herzegovina, the most important being the entry of our academic youth into the world university "bank" of the credit value that gives each students the right and opportunity to study at other European universities.

Among other advantages that this credit system brings, it is important to point out the following:

 comparative evaluation of similar or related study subjects at different universities in the country and abroad;

- more efficient organization of study that gives students greater freedom of choosing optional subjects;
- reduced curriculum overload and a higher possibility of students' independent work.

Success in implementing the Bologna process depends on the cooperation and understanding of all members of the academic community, primarily professors and students and the responsibilities they will take.

Enrolment conditions

The student enrolment at "CEPS" High College is performed on the basis of the public tender announced through mass media, after the approval of student enrolment quotas for each study program by the Ministry of education, science, culture and sport of the Central Bosnia Canton.

Persons who completed four-year secondary school in Bosnia and Herzegovina have the right to participate in public tender, and who are mentally and physically capable of mastering the material, as well as foreign citizens and stateless citizens who completed secondary school abroad, after the recognition, that is certificate equivalence of completion of secondary education abroad.

Foreign citizens and stateless persons enrol at "CEPS" High College under the same conditions as BiH citizens unless specified otherwise in international conventions and agreements.

Enrolment procedure

The enrolment procedure is carried out for all applicants who filled in application online or in person, submitted all necessary documentation and payed the enrolment materials fees and the first installment of the costs of study, within deadlines prescribed in public tender.

Documents required for undergraduate studies enrolment:

- application for enrolment (it can be obtained from the student affairs office or the website of "CEPS" High College)
- certificate of completion of four-year secondary school,
- certificate of completion of each year of secondary school,
- recognition of certificate of secondary school completion if completed outside of BiH,
- birth certificate,

- certificate of citizenship of Bosnia and Herzegovina,
- two photographs 4x6 cm,
- a receipt of payment of enrolment materials,
- a receipt of payment of the first installment of study,
- an enrolment form (it can be obtained from the student affairs office),
- semester form (it can be obtained from the student affairs office).

Additional documents that are required for those who transfer from other higher education institutions:

- student transcript book of previous study,
- original transcript of records from previous studies (or a certified copy of student transcript book) and the copy of diploma for students who graduated,
- a copy of program of previous study for study of which program was not publicly announced or the program that student attended and passed an exam is no longer carried out.

All these submitted documents should be originals, or certified copies.

Costs of studying

The studies performed at "CEPS" High College are financed exclusively from this institution's own sources, according to the adopted Bill of Quantities for individual programs of study adopted by the Steering Board of this institution.

Payment of costs of studying is allowed in a maximum of twelve (12) installments, and the students who have right to take exams in the semester of the academic year they are enrolled in, besides obligations determined by the curriculum, met at least 50% of the total costs of studying.

If the costs of study are paid by employer, a certificate or decision on covering the costs of the study shall be submitted when enrolling, and the payment of the costs of studying is made by invoice, with the dynamics in agreement with the employer.

The first installment of the costs of studying for all study program can be paid in the minimum amount of 150.00 KM and is paid when enrolling, and the remaining costs are paid by payment schedule as mentioned in two previous paragraphs.

The costs of studying include:

- lectures and exercises/seminars according to the predetermined curriculum,
- colloquiums and tests for certain subjects according to the predetermined curriculum,
- the use of teaching and presentation equipment (computers, video projectors, overhead projectors, etc.),
- teaching materials (lecture summaries, lecture notes, lecture slides, tasks for exercise, etc.),
- the use of computers in the IT room and other teaching equipment,
- the costs of enrollment and management of student administration during the studies,
- the use of multimedia center,
- remedial classes in special cases, based on the director's decision,
- the use of sports facilities in the hire period,
- academic consulting and mentorship,
- transport costs for field classes,
- the costs of professional practice.

The costs of studying do not include:

- workbooks, notebooks and other similar materials,
- commission examinations,
- remedial classes in case it is needed due to unjustified reasons (students' indolence, unjustified absences, etc.),
- compensation for damages caused intentionally or inadvertently by a student,
- accident insurance, unless specifically agreed.

The costs of tuition (for a period of 3 or 4 years) shall be paid for the 2015/2016 academic year for the first and second semester according to the following table review:

No.	Study program	Field of study	Full-time study KM	Full-time study EUR	Part-time study KM	Part-time study EUR
1	TDANCDODT	Road transport	2.990,00	1.530,00	2.990,00	1.530,00
1.	TRANSPORT	Railway transport	2.990,00	1.530,00	2.990,00	1.530,00
		Finance and accounting	2.990,00	1.530,00	2.990,00	1.530,00
2.	BUSINESS ECONOMICS	Management	2.990,00	1.530,00	2.990,00	1.530,00
2.	BUSINESS ECONOMICS	Management of public sector and administration	2.990,00	1.530,00	2.990,00	1.530,00
3.	SECURITY STUDIES	Criminalistics	2.990,00	1.530,00	2.990,00	1.530,00
4.	WORK SAFETY AND FIRE PROTECTION	Work safety	2.990,00	1.530,00	2.990,00	1.530,00
''	STUDIES	Fire protection	2.990,00	1.530,00 1.530,00 1.530,00 1.530,00 1.530,00	2.990,00	1.530,00
	0,00,120	Energy management and energy efficiency	2.990,00	1.530,00	2.990,00	1.530,00
5.	STUDY OF ENERGETICS	Renewable energy sources	2.990,00	1.530,00	2.990,00	1.530,00
		Energy plant maintenance	2.990,00	1.530,00	2.990,00	1.530,00
		Thermotechnics	2.990,00	1.530,00	2.990,00	1.530,00
6.	INFORMATION TECHNOLOGY	Information technology	3.490,00	1.786,00	3.490,00	1.786,00
7.	BUSINESS ECONOMICS	Management	3.490,00	1.786,00	3.490,00	1.786,00
		Nursing	3.490,00	1.786,00	3.490,00	1.786,00
8.	HEALTH STUDIES	Sanitary Engineering	3.490,00	1.786,00	3.490,00	1.786,00
		Physiotherapy	3.490,00	1.786,00	3.490,00	1.786,00
		Geriatrics	3.490,00	1.786,00	3.490,00	1.786,00

^{*} Enrollment fee: 100,00 KM

^{*} Enrollment materials fee: 85,00 KM

^{*} The use of library, E-learning, study visits: 100,00 KM

Study programs

Offer regarding the study programs at "CEPS" High College is truly rich, so that you can choose between different fields of study in technical, natural, and social sciences.

The study is performed by years. A necessary condition for admission is completion of the previous year, i.e. exams from the previous year in the minimum number of ECTS credits specified by the Rules of study at "CEPS" High College.

Study year is enrolled with winter semester, and enrollment into the summer semester of the same academic year is performed automatically through the semester tests carried out in early February.

In addition, each course ca have several prerequisites-courses that must be met in order to pass it.

Obligations of students to each course are determined by the course leader at the beginning of classes for each course in the official descriptive form of courses, which is made public in student information system. Each course in the studies carries the appropriate number of ECTS credits.

The number of ECTS credits is determined by school hours that a student need to invest in order to master the materials of the course, which includes active learning (lectures and exercises) as well as work at home. It is assumed that one ECTS credit is worth 30 hours of student work. Average weekly student workload is about 22-24 school hours at "CEPS" High College and about 15-20 hours at home. A student should collect 30 ECTS credits per semester. Each year of study (two semesters) is worth 60 ECTS credits.

At the final, sixth or eighth semester a student has to prepare the final paper awarded with ECTS credits. Students must obtain the total number of 180 ECTS credits in order to complete three years of study and acquire diplomas, and in order to complete four-year study and acquire diplomas the students must obtain 240 ECTS credits.

In order to take an exam, the student must meet the minimum attendance prescribed in each course and based on that, teachers sign student transcript book.

Mandatory class attendance is determined by curriculum for each study program separately, and depending on the student's status, whether full-time or part-time.

Students who do not achieve the required attendance, that is the students who are absent from classes for more than the reasonably recoverable number of hours are not allowed to have the professor's signature and they cannot pass the course, but they are obliged to re-enroll it in the next academic year and retake it.

I. Study program: TRANSPORT

Field of study: Road transport

The needs for personnel qualified for road transport primarily result from the strategic decisions of Bosnia and Herzegovina that functioning and development of transpoert is based on high level, which is necessary for Bosnia and Herzegovina in order to be included into the international division of labor and international integration as well as the use of comparative advantages of the geo-traffic position.

A systematic approach to transport policy of Bosnia and Herzegovina and the needs for transport personnel are defined in the Transport development strategy of Bosnia and Herzegovina. Starting with basic goals, forecasts and plans included in the Transport development strategy, it is necessary to provide a sufficient number of educated and qualified personnel, who would ensure the implementation of the goals.

Among other things, long-term and actual needs for highly educated and skilled personnel in transport in Bosnia and Herzegovina are based on geo-traffic position of the country and the intensive development of modern transport technology.

Development of transport system and the need for skilled personnel have no alternative in Bosnia and Herzegovina. In this regard, in the last few years, a number of legal and subordinate regulations have been adopted, and a number of bilateral acts have been signed and multi-transport is oriented towards professional requirements of profiles of transport engineers.

Study provides technical, technological and organizational education necessary for management of transport processes, management of equipment and materials, and the practical application of modern technology and organization in transport in order to achieve optimal technical, technological and economical effects along with environment protection of bilateral agreements that deal with the issue of transport.

Undergraduate Transport study, the field of Road transport, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: **The Bachelor of road transport engineering** with a total of 180 ECTS credits.

Undergraduate Transport study, the field of Road transport, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: **The Bachelor of road transport engineering** with a total of 240 ECTS credits.

Professional titles will be in accordance with the Law on Professional Titles after its adoption.

The curriculum of undergraduate Transport study, the field of Road transport, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

The 1st year of study – The 1st semester

No.	Courses	H	ECTS credits		
IVO.		L	S	E	
1	Mathematics	4	-	3	8
2	Physics	2	-	1	4
3	Graphic communications	2	-	2	5
4	Fundamentals of informatics	2	-	3	5
5	Knowledge of goods	2	1	-	5
6	Foreign language I	2	-	1	3
7	Physical education			(2)	
	Total in semester	14	1	10	30

Note:

- 1) L lectures, S seminars, E exercises, Pr practicum
- 2) when enrolling into a foreign language students choose from English, German and Italian
- 3) Physical education is performed outside of course schedule

The 1st year of study – The 2nd semester

Na	Courses	Н	ours per wee	k	ECTS credits
No.		L	S	E	
8	Spatial and transport planning	2	1	-	4
9	Modern transport systems	2	2	-	6
10	Fundamentals of electrical engineering and electronics	2	-	2	5
11	Statistics in transport	2	-	1	4
12	Foreign language II	2	-	1	4
13	Fundamentals of mechanical engineering	2	-	1	4
14	Transport and ecology	2	1	-	3
15	Physical education			(2)	
	Total in semester	14	4	5	30

The 2nd year of study – The 3rd semester

No.	Courses	Н	lours per we	ek	ECTS credits
NO.		L	S	E	
16	Technical mechanics	3	-	2	6
17	Reloading equipment I	2	1	-	4
18	Internal transport and storage	2	-	2	5
19	Operational research in transport	2	-	1	4
20	Transport corridors and flows of goods	2	2	-	4
21	Transport logistics	2	1	-	4
22	Foreign language III	1	-	2	3
	Total in semester	14	4	7	30

The 2nd year of study – The 4th semester

No.	Courses	Но	ECTS credits		
		L	S	E	
23	Reloading equipment II	2	-	1	4
24	Goods distribution centers and	2	2	-	5
	terminals				

	Total in semester	13	9	3	30
	month				
30	(Summer) Professional practice - 1				2
29	Foreign language IV	1	-	2	3
	urban public transport				
28	Technology and organization of	2	1	-	5
27	Transport law	2	2	-	3
26	Fundamentals of management	2	2	-	5
25	Fundamentals of economics	2	2	-	3

The 3rd year of study – The 5th semester

No.	Courses	Ho	urs per wee	k	ECTS credits
IVO.		L	S	E	
31	Road transport infrastructure	2	1	-	3
32	Means and exploitation of road transport means	3	-	1	5
33	Technology and organization of road transport	2	2	-	4
34	Road transport safety with traffic accidents expertise	2	-	1	4
35	Transport technics	2	-	1	5
36	Information systems in road transport	1	-	2	3
37	Road transport economics	1	1	-	3
	Optional course*	2	1	-	3
	Total in semester	15	5	5	30

^{*}Optional courses (students enroll in one of the courses):

³⁸ Marketing in transport

³⁹ Transport insurance

⁴⁰ Protection in transport

⁴¹ Transport medicine

⁴² Meteorology

The 3rd year of study – The 6th semester

No.	Courses	Ho	ECTS credits		
		L	S	E	
43	Semestral professional practice	-	-	-	13
44	The final paper	-	-	-	17
	Total in semester	-	-	-	30

The curriculum of undergraduate Transport study, the field of Road transport, lasts for four academic years (eight semesters), upon completion, students acquire a total of 240 ECTS credits.

The 1st year of study – The 1st semester

No.	Courses	Но	ECTS credits		
NO.		L	S	E	
1	Mathematics	4	-	3	8
2	Physics	2	-	1	4
3	Graphic communications	2	-	2	5
4	Fundamentals of informatics	2	-	3	5
5	Knowledge of goods	2	1	-	5
6	Foreign language I	2	-	1	3
7	Physical education			(2)	
	Total in semester	14	1	10	30

Note:

- 1) L lectures, S seminars, E exercises, Pr practicum
- 2) when enrolling into a foreign language students choose from English, German and Italian
- 3) Physical education is performed outside of course schedule

The 1st year of study – The 2nd semester

No.	Courses	Но	Hours per week			
		L	S	E		
8	Spatial and transport planning	2	1	-	4	
9	Modern transport systems	2	2	-	6	
10	Fundamentals of electrical engineering and electronics	2	-	2	5	
11	Statistics in transport	2	-	1	4	

12	Foreign language II	2	-	1	4
13	Fundamentals of mechanical	2	-	1	4
	Engineering				
14	Transport and ecology	2	1	-	3
15	Physical education			(2)	
	Total in semester	14	4	5	30

The 2nd year of study – The 3rd semester

No.	Courses	Н	Hours per week			
IVO.		L	S	E		
16	Technical mechanics	3	-	2	6	
17	Reloading equipment I	2	1	-	4	
18	Internal transport and storage	2	-	2	5	
19	Operational research in transport	2	-	1	4	
20	Transport corridors and flows of	2	2	-	4	
	goods					
21	Transport logistics	2	1	-	4	
22	Foreign language III	1	-	2	3	
	Total in semester	14	4	7	30	

The 2nd year of study – The 4th semester

No.	Courses	Ho	urs per wee	k	ECTS credits
IVO.	Courses	L	S	E	
23	Reloading equipment II	2	-	1	4
24	Goods distribution centers and terminals	2	2	-	5
25	Fundamentals of economics	2	2	-	3
26	Fundamentals of management	2	2	-	5
27	Transport law	2	2	-	3
28	Technology and organization of road				
	transport	2	1	-	5
29	Foreign language IV	1	-	2	3
30	(Summer) Professional practice - 1 month				2

	Total in semester	13	9	3	30
- 1			_	_	

3rd year of study – 5th semester

No.	Courses	Н	Hours per week				
IVO.	Courses	L	S	E			
31	Road transport infrastructure	2	1	-	3		
32	Means and exploitation of road	3	-	1	5		
	transport means						
33	Technology and organization of road	2	2	-	4		
	transport						
34	Road transport safety with traffic	2	-	1	4		
	accidents expertise						
35	Transport technics	2	-	1	5		
36	Information systems in road transport	1	-	2	3		
37	Road transport economics	1	1	-	3		
	Optional course*	2	1	-	3		
	Total in semester	15	5	5	30		

^{*}Optional courses (students enroll in one of the courses):

- 38 Marketing in transport
- 39 Transport insurance
- 40 Protection in transport
- 41 Transport medicine
- 42 Meteorology

The 3rd year of study – The 6th semester

No.	Courses	Н	ECTS credits		
NO.	Courses	L	S	E	
43	Transport planning	2	-	2	6
44	Transport terminals	3	-	3	6
45	Transport evaluation	2	-	2	4.50
46	Transport psychology	2	-	2	4.50
	Optional course 1*	2	-	2	4.50
	Optional course 2*	2	-	2	4.50
	Total in semester	13	-	13	30

*Optional courses 1 (students enroll in one of the courses):

47 Intermodal transport

48 Vertical transport

*Optional courses 2 (students enroll in one of the courses):

49 Marketing in transport

50 Management in transport

The 4th year of study – The 7th semester

No.	Courses	H	Hours per week			
IVO.	Courses	L	S	E		
51	Transport of passengers and goods	3	-	3	6	
52	Urban public transport	3	-	3	6	
53	Freight forwarding	2	-	2	6	
54	Organization of transport enterprises	2	-	2	6	
55	Transport safety	3	-	3	6	
	Total in semester	13	-	13	30	

The 4th year of study – The 8th semester

No.	Courses	Но	ECTS credits		
IVO.	Courses	L	S	E	
56	Urban roads	2	-	2	6
57	Administrative and labor law	2	-	2	6
58	Logistics in transport	2	-	2	6
	Optional course 3*	2	-	2	4
	Optional course 4*	2	-	2	4
63	The final paper	-	-	-	4
	Total in semester	10	-	10	30

^{*}Optional courses 3 (students enroll in one of the courses):

58 Traffic accident investigation

59 Transport management in cities

*Optional courses 1 (students enroll in one of the courses):

60 Traffic accidents expertise

61 Prevention and ecology in transport

The field of study: Railway transport

Railway transport study was established for a number of competitive advantages compared to those performed in the country and beyond. System integration of the fields (railway transport, road transport, etc.) provides education of experts of new profile who can successfully solve complex problems in transport.

Development of trans-European transport networks requires local experts and scientific resources that can successfully operate in the planning, construction and maintenance of such systems. In addition, each enterprise or civil service must have experts who can plan, develop and maintain the systems necessary for doing business and other economic and non-economic activities.

The purpose or the goal of the field Railway transport is to achieve sustainable, effective, efficient and ethical education of the students who can successfully perform their professional tasks in the specified area, and be thoroughly qualified for lifelong education and training. The proposed curriculum carried out by higher education institution is in accordance with the strategic goals and guidelines for development of the unique European Higher Education Area (EHEA, ERA).

After completing undergraduate study the students are qualified to apply acquired knowledge in analysis of the railway system according to various criteria, to choose appropriate analytical methods for solving problems related to technological processes in the passenger and railway freight transport, to apply an appropriate model in solving the problems of optimal process based on defined transport needs, to analyze railway subsystems and technological processes in the passenger and freight transport by applying acquired knowledge and to solve complex problems, to analyze and explain the impact of management system on effectiveness of implementation of railway transport, to apply simulation methods for solving operational methods in the railway transport and to analyze and explain results of performed simulations, etc.

Undergraduate Transport study, the field Railway transport, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: The bachelor of railway transport engineering with a total of 180 ECTS credits.

Undergraduate Transport Study, the field Railway Transport, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: The bachelor of railway transport engineering with a total of 240 ECTS credits.

Professional titles will be in accordance with the Law on Professional Titles after its adoption. The curriculum of undergraduate Transport study, the field of Railway transport, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

1st year of study – 1st semester

No.	Courses		Hours po		ECTS	Evame	
IVO.	Courses	L	S	Е	Pr	credits	Exams
1	Mathematics	4	-	3	-	8	1
2	Physics	2	-	1	-	4	1
3	Graphic communications	2	-	2	-	5	1
4	Fundamentals of informatics	2	-	3	-	5	1
5	Knowledge of goods	2	1	-	-	5	1
6	Foreign language I	2	-	1	-	3	1
7	Physical education			(2)			
	Total in semester	14	1	10	-	30	6

Note:

- 1) L lectures, S seminars, E exercises, Pr practicum
- 2) when enrolling into a foreign language students choose from English, German and Italian
- 3) Physical education is performed outside of course schedule

1st year of study – 2nd semester

Na	Courses		Hours po	er week		ECTS	Exams
No.	Courses	L	S	Е	Pr	credits	Exams
7	Physical education			(2)			
8	Spatial and transport planning	2	1	-	_	4	1
9	Modern transport systems	2	2	-	-	6	1
10	Fundamentals of electrical engineering and electronics	2	-	2	-	5	1
11	Statistics in transport	2	-	1	-	4	1
12	Foreign language II	2	-	1	-	4	1
13	Fundamentals of mechanical Engineering	2	_	1	-	4	1

14	Transport and ecology	2	1	-		3	1
	Total in semester	14	4	5	-	30	7

2nd year of study – 3rd semester

No.	Courses		Hours p	er week		ECTS	Exams
IVO.	Courses	L	S	Е	Pr	credits	Exams
15	Technical mechanics	3	-	2	-	6	1
16	Reloading equipment I	2	1	-	-	4	1
17	Internal transport and storage	2	-	2	-	5	1
18	Operational research in transport	2	-	1	-	4	1
19	Transport corridors and flows of goods	2	2	-	-	4	1
20	Transport logistics	2	1	-	-	4	1
21	Foreign language III	1	-	2	-	3	1
	Total in semester	14	4	7	-	30	7

2nd year of study – 4th semester

No.	Courses		Hours	per weel	(ECTS	Exams
140.	Courses	L	S	Е	Pr	credits	Exams
22	Reloading equipment II		-	1	-	4	1 1
23	Goods distribution centers and terminals	2	2	-	-	5	1
24	Fundamentals of economics	2	2	-	-	3	1
25	Fundamentals of management	2	2	-	-	5	1
26	Transport law	2	2	-	-	3	1
27	Technology and organization of urban public transport	2	1	-	-	5	1
28	Foreign language IV	1	-	2	-	3	1
29	(Summer) Professional practice - 1 month				(x)	2	
	Total in semester	13	9	3	(x)	30	7

3rd year of study – 5th semester

No.	Courses		Hours per week				Exams
IVO.	Courses	L	S	E	Pr	credits	LAGIIIS
30	Railway transport infrastructure	2	1	-	-	6	1
31	Railway vehicles	3	-	1	_	6	1
32	Regulation and surveillance of	2		2	-	6	1
32	railway transport		-				l
33	Information systems in railway	1	-	2	_	6	1
33	transport						
	Optional course*	2	1	-	-	6	1
	Total in semester	10	2	5	-	30	5

*Optional courses (students enroll in one of the courses):

- 34 Marketing in transport
- 35 Transport insurance
- 36 Protection in transport
- 37 Transport medicine
- 38 Meteorology

3rd year of study – 6th semester

No.	Courses		Hours	ECTS	Exams		
NO.	Courses	L	S	Е	Pr	Credits	EXAIIIS
39	Semestral professional practice	-	-	-	(x)	13	-
40	The final paper	-	-	(x)	-	17	1
	Total in semester	-	-	(x)	(x)	30	1

1st year of study – 1st semester

No.	Courses		Hours po	ECTS	Exams		
NO.	Courses	L	S	Е	Pr	credits	Exallis
1	Mathematics	4	-	3	-	8	1
2	Physics	2	-	1	-	4	1
3	Graphic communications	2	-	2	-	5	1
4	Fundamentals of informatics	2	-	3	-	5	1

,	Total in semester	14	1	10	_	30	6
7	Physical education			(2)			
6	Foreign language I	2	-	1	-	3	1
5	Knowledge of goods	2	1	-	-	5	1

Note:

- 1) L lectures, S seminars, E exercises, Pr practicum
- 2) when enrolling into a foreign language students choose from English, German and Italian
- 3) Physical education is performed outside of course schedule

1st year of study – 2nd semester

N.	C		Hours p	er week		ECTS	F
No.	Courses	L	S	E	Pr	credits	Exams
8	Spatial and transport planning	2	1	-	-	4	1
9	Modern transport systems	2	2	-	-	6	1
10	Fundamentals of electrical engineering and electronics	2	-	2	-	5	1
11	Statistics in transport	2	-	1	-	4	1
12	Foreign language II	2	-	1	-	4	1
13	Fundamentals of mechanical Engineering	2	-	1	-	4	1
14	Transport and ecology	2	1	-		3	1
7	Physical education			(2)			
	Total in semester	14	4	5	-	30	7

2nd year of study – 3rd semester

No. Courses			Hours p	ECTS	Exams		
IVO.	Courses	L	S	Е	Pr	credits	EXAIIIS
15	Technical mechanics	3	-	2	-	6	1
16	Reloading equipment I	2	1	-	-	4	1
17	Internal transport and storage	2	-	2	-	5	1

18	Operational research in transport	2	-	1	-	4	1
19	Transport corridors and	2	2	-	-	4	1
	flows of goods						
20	Transport logistics	2	1	-	-	4	1
21	Foreign language III	1	-	2	-	3	1
	Total in semester	14	4	7	-	30	7

2nd year of study – 4th semester

NI.	C		Hours p	er week		ECTS	F
No.	Courses	L	S	Е	Pr	credits	Exams
22	Reloading equipment II	2	-	1	-	4	1
23	Goods distribution centers and terminals	2	2	-	-	5	1
24	Fundamentals of economics	2	2	-	-	3	1
25	Fundamentals of management	2	2	-	-	5	1
26	Transport law	2	2	-	-	3	1
27	Technology and organization of urban public transport	2	1	-	-	5	1
28	Foreign language IV	1	-	2	-	3	1
29	(Summer) Professional practice - 1 month				(x)	2	
	Total in semester	13	9	3	(x)	30	7

3rd year of study – 5th semester

No.	Courses		Hours p	ECTS	Evame		
IVO.	Courses	L	S	Е	Pr	credits	Exams
30	Railway transport infrastructure	2	1	-	-	6	1
31	Railway vehicles	3	-	1	-	6	1
32	Regulation and surveillance of railway transport	2	-	2	-	6	1
33	Information systems in railway transport	1	-	2	-	6	1

Optional course*	2	1	-	-	6	1
Total in semester	10	2	5	-	30	5

*Optional courses (students enroll in one of the courses):

34 Marketing in transport

35 Transport insurance

36 Protection in transport

37 Transport medicine

38 Meteorology

3rd year of study – 6th semester

No.	Courses		Hours pe	ECTS	Exams		
IVO.	Courses	L	S	Е	Pr	credits	Exallis
39	Transport planning	2	-	2	-	6	1
40	Transport terminals	3	-	3	-	6	1
41	Transport evaluation	2	-	2	-	6	1
	Optional course 1*	2	-	2	-	6	1
	Optional course 2*	2	-	2	-	6	1
	Total in semester	11	-	11	-	30	5

*Optional courses 1 (students enroll in one of the courses):

42 Intermodal transport

43 Vertical transport

*Optional courses 2 (students enroll in one of the courses):

44 Psychology in transport

45 Management in transport

4th year of study – 7th semester

No.	Courses		Hours p	ECTS	Exams		
IVO.	Courses	L	S	E	Pr	credits	Exams
46	Transport of passengers and goods	3	-	3	-	6	1
47	Urban public transport	3	-	3	-	6	1
48	Freight forwarding	2	-	2	-	6	1

31

49	Technical exploitation of railway vehicles	2	-	2	-	6	1
50	Railway transport safety	3	-	3	-	6	1
	Total in semester	13	-	13	-	30	5

4th year of study – 8th semester

No.	Courses	Hours per week				ECTS	Exams
		L	S	Е	Pr	credits	Exallis
51	Technology and organization of railway transport	2	-	2	-	6	1
52	Administrative and labor law	2	-	2	-	6	1
53	Diagnostics and maintenance of railway vehicles	2	-	2	-	6	1
	Optional course 3*	2	-	2	-	4	1
	Optional course 4*	2	-	2	-	4	1
58	The final paper	-	-	-	-	4	1
	Total in semester	10	-	10	-	30	6

*Optional courses 3 (students enroll in one of the courses):

54 Organization of transport companies

55 Transport management in cities

*Optional courses 1 (students enroll in one of the courses):

56 Transport logistics

57 Prevention and ecology in transport

II. Study program: BUSINESS ECONOMICS

The field of study:: Finance and accounting

Management

Management of public sector and administration

The profile of personnel who attend the Study program Business economics must be different from the profile of classical economists.

This profile must have business-management orientation with modern operational technological knowledge and skills as well as intercultural characteristics that can only be acquired in at a modern profiled higher education institution such as ours.

Therefore, the focus should be on the new paradigm of management, accounting and finance, the management of public sector and administration. The study of Business economics should be understood as "learning about overall management in organizations".

The Study of Business economics should be seen solely as a process of managing organizations (institutions, companies, state structures) in traditional theories of Business economics it can be defined as "efort in achieving goals through planning, organizing, leading, controlling".

The starting point for determining the needs in the fields of economic education is a radically changed approach to understanding economy and economic values.

The focus is on healthy socio-economic systems that operate on the basis of knowledge and with educated employees, interactively connected with financially successful consumers of products and services.

On this basis, enterprises are located as members of global and local communities, they operate in large organizational networks and systems. Their business activities are technologically intensive and require qualified employees educated at top quality higher education institutions.

The ambition of "CEPS" High College is to contribute to dynamics of economic life of the region, Federation of Bosnia and Herzegovina and wider area by educating personnel for this educational profile, as well as acquisition of necessary knowledge in all areas of Business economics, which are necessary for business people.

Students in the field of Business Economics acquire basic knowledge of the market conditions in which economic operators work, assumptions that need to be fulfilled in order to implement business activities, costs and types of costs that occur, and the business result achieved by the economic operators.

In addition to this knowledge, students acquire competence to determine and manage costs in order to achieve better business results, to calculate costs and business performance indicator, for the purpose of identifying strengths and weaknesses of enterprise.

By studying Business economics, the future students will be provided with:

- comprehensive knowledge of Economics and economic disciplines,
- the ability to creatively apply quantitative and statistical methods in economy,
- the ability to apply advanced methods of analysis and research,
- the ability to solve the problems of functioning problems of economic system,
- the ability of multi-dimensional way of thinking,
- the ability to create and formulate new ideas in business

Knowledge and skills acquired upon completing the study, the economists in the field of accounting and finance will be qualified to idnependently maintain financial records of small enterprises, crafts and non-profit organizations. Likewise, they will be qualified to perform professional tasks in the field of accounting and finance of medium-sized and large enterprises and to perform organizational functions in the part related to accounting and financial affairs in enterprises, banks and insurance companies.

Students who graduated in the field of Finance and accounting will be qualified to perform tasks in the area of financial management, financial accounting and reporting, controlling, managerial accounting, business planning and auditing.

Knowledge and skills acquired upon completing the study, economists, in the field of Management, the students are qualified for work and professional development on research, planning and design of organization of enterprise and its parts, management at all organizational levels, human resource management, production management, project management, reward management, consulting in the area of organization, management and reengineering, change management and crisis management, and research and development activities in scientific and educational institutions.

Knowledge and skills acquired upon completing the study, economists, in the field of Management of public sector and administration, refer to the management of complexity of a large number of functions

of public adminstration organs and the optimization of information, value and primarily financial flows in the system of administration.

Also, the sphere of activities and tasks, which fall within the area of this field of study, include activities of following up with a great number of citizens and other clients who are provided with services and whose requests are solved; controlling of management effects of functions at several levels (level of administrative units and local self-government, level of head department, level of operative employees); planning of future projects, actions and activities that include multidimensional interactions (budget plan, liabilities and debt collection, the plan of environmental protection, spatial planning, the construction of infrastructure systems, etc.

Undergraduate study of Business economics, with the fields: Finance and accounting, Management, and Management of public sector and administration, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: **The Bachelor of Business Economics** with a total of 180 ECTS credits.

Undergraduate Study of Business Economics, with the fields: Finance and accounting, Management and Management of public sector and administration, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: **The Bachelor of Business Economics** with a total of 240 ECTS credits.

Professional titles will be in accordance with the Law on Professional Titles after its adoption.

The curriculum of undergraduate study of Business economics, with the fields: Finance and accounting, Management, and Management of public sector and administration, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

The curriculum of UNDERGRADUATE STUDY

Study of **BUSINESS ECONOMICS**

Year of study: 1st, 2nd and 3rd

Field of study: FINANCE AND AČCOUNTING

Status	ECTS	Hours		1st year
	30		1st semester	
MAN	6	60	Fundamentals of Economics	
MAN	6	60	Mathematics	
MAN	6	60	Informatics	
MAN	6	60	Fundamentals of Entrepreneurship	
MAN	3	30	Foreign Business Language A1	
MAN	3	30	Physical Education 1	
	30		2nd semester	
MAN	6	60	Microeconomics 1	
MAN	6	60	Statistics	
MAN	6	60	Organization	
MAN	6	60	Marketing	
MAN	3	30	Foreign Business Language A2	
MAN	3	30	Physical Education 2	
Status	ECTS	Hours		2nd year
	30		3rd semester	
MAN	6	60	Macroeconomics 1	
MAN	6	60	Accounting	
MAN	6	60	Management	
MAN	3	30	Microeconomics 2	
MAN	3	30	Statistical Analysis	
OPT	6	60	Optional course:	
			Anthropology and psychology of management	

			Occupational psychology	
			Foreign Business Language B1	
			Commercial law	
	30		4th semester	
MAN	6	60	Economy	
MAN	6	60	International economics	
MAN	6	60	Public finance	
MAN	6	60	Accounting of small and medium-sized enterprises	
MAN	3	30	Macroeconomics 2	
MAN	3	30	Mathematical analysis for economists	
Status	ECTS	Hours		3rd year
	30		5th semester	·
MAN	6	60	Business finance	
MAN	6	60	Economics of banking	
MAN	4	45	International business	
MAN	6	60	Financial accounting	
OPT	4	45	Optional course:	
			Economics and policy of investment	
			Transport and maritime economics	
			Financial markets and institutions	
			Accounting of budget users	
			Human resources management	
OPT	4	45	Optional course:	
			Financial mathematics	
			Organization and data analysis	
			Foreign business language B2	
			Introduction to modelling of business decision-making	
	30		6th semester	
MAN	6	60	Strategic management	
MAN	6	60	Analysis and planning	
MAN	6	60	Financial institution accounting	
OPT	4	45	Optional course:	
			Data bases	
			Financing of small and middle-sized enterprises	

			Corporate restructuring and recovery
OPT	4	45	Optional course:
			Actuarial mathematics
			Monetary economics
			Foreign business language C1
FP	4		The final paper

The curriculum of UNDERGRADUATE STUDY

Study of **BUSINESS ECONOMICS**

Year of study: 1st, 2nd and 3rd

Field of study: MANAGEMENT

Status	ECTS	Hours		1st year
	30		1st semester	<u> </u>
MAN	6	60	Fundamentals of economics	
MAN	6	60	Mathematics	
MAN	6	60	Informatics	
MAN	6	60	Fundamentals of Entrepreneurship	
MAN	3	30	Foreign business language A1	
MAN	3	30	Physical education 1	
	30		2nd semester	
MAN	6	60	Microeconomics 1	
MAN	6	60	Statistics	
MAN	6	60	Organization	
MAN	6	60	Marketing	
MAN	3	30	Foreign business language A2	
MAN	3	30	Physical education 2	
Status	ECTS	Hours		2nd year
	30		3rd semester	
MAN	6	60	Macroeconomics 1	
MAN	6	60	Accounting	
MAN	6	60	Management	
MAN	3	30	Microeconomics 2	

MAN	3	30	Statistical analysis	
OPT	6	60	Optional course:	
			Occupational psychology	
			Foreign business language B1	
			Commercial law	
	30		4th semester	
MAN	6	60	Economy	
MAN	6	60	International economics	
MAN	6	60	Monetary economics	
MAN	6	60	Anthropology and psychology of management	
MAN	3	30	Macroeconomics 2	
MAN	3	30	Mathematical analysis for economists	
Status	ECTS	Hours		3rd year
	30		5th semester	
MAN	6	60	Business finance	
MAN	6	60	Economics of banking	
MAN	4	45	International business	
MAN	6	60	Human resources management	
OPT	4	45	Optional course:	
			Economics and policy of investment	
			Transport and maritime economics	
			Financial markets and institutions	
			Industrial policy	
OPT	4	45	Optional course:	
			Financial mathematics	
			Financial accounting	
			Foreign business language B2	
			Introduction to modelling of business decision-making	
	30		6th semester	
MAN	6	60	Strategic management	
MAN	6	60	Analysis and planning	
MAN	6	60	Operations management	
OPT	4	45	Optional course:	
			Data bases	

			Financing of small and middle-sized enterprises
			Public finance
			Corporate restructuring and recovery
OPT	4	45	Optional course:
			Actuarial mathematics
			Accounting of small and middle-sized enterprises
			Foreign business language C1
FP	4		The final paper

The curriculum of UNDERGRADUATE STUDY

Study of **BUSINESS ECONOMICS**

Year of study: 1st, 2nd and 3rd

Field of study: MANAGEMENT OF PUBLIC SECTOR AND ADMINISTRATION

Status	ECTS	Hours		1st year
	30		1st semester	
MAN	6	60	Fundamentals of economics	
MAN	6	60	Mathematics	
MAN	6	60	Informatics	
MAN	6	60	Fundamentals of entrepreneurship	
MAN	3	30	Foreign business language A1	
MAN	3	30	Physical education 1	
	30		2nd semester	
MAN	6	60	Microeconomics 1	
MAN	6	60	Statistics	
MAN	6	60	Organization	
MAN	6	60	Marketing	
MAN	3	30	Foreign business language A2	
MAN	3	30	Physical education 2	
Status	ECTS	Hours		2nd year
	30		3rd semester	
MAN	6	60	Macroeconomics 1	
MAN	6	60	Accounting	

MAN	6	60	Management
MAN	3	30	Microeconomics 2
MAN	3	30	Statistical analysis
OPT	6	60	Optional course:
			Occupational psychology
			Foreign business language B1
			Commercial law
	30		4th semester
MAN	6	180	State management and rule of law
MAN	5	150	Organization 2
MAN	7	210	Business finance
OPT	6	180	Optional course:
			International economics
			Monetary economics
_		l	
State	ECTS	Hours	3rd year
State	ECTS 30	Hours	5th semester
State MAN		Hours 150	
	30		5th semester
MAN	30 5	150	5th semester Administrative law
MAN MAN	30 5 5	150 150	5th semester Administrative law Budget management
MAN MAN MAN	30 5 5 8	150 150 240	5th semester Administrative law Budget management Project
MAN MAN MAN	30 5 5 8	150 150 240	5th semester Administrative law Budget management Project Optional course:
MAN MAN MAN	30 5 5 8	150 150 240	5th semester Administrative law Budget management Project Optional course: Human resources management
MAN MAN MAN	30 5 5 8 6	150 150 240	5th semester Administrative law Budget management Project Optional course: Human resources management International business
MAN MAN MAN OPT	30 5 5 8 6	150 150 240 180	5th semester Administrative law Budget management Project Optional course: Human resources management International business 6th semester Economics of BiH Monetary and public finance
MAN MAN MAN OPT	30 5 5 8 6 30 5	150 150 240 180	Sth semester Administrative law Budget management Project Optional course: Human resources management International business 6th semester Economics of BiH Monetary and public finance Professional practice
MAN MAN OPT MAN MAN	30 5 5 8 6 30 5	150 150 240 180 150 150	5th semester Administrative law Budget management Project Optional course: Human resources management International business 6th semester Economics of BiH Monetary and public finance Professional practice Optional course:
MAN MAN OPT MAN MAN MAN MAN	30 5 5 8 6 30 5 5 6	150 150 240 180 150 150 180	Sth semester Administrative law Budget management Project Optional course: Human resources management International business 6th semester Economics of BiH Monetary and public finance Professional practice

The curriculum of undergraduate Study of business economics, with the fields: Finance and accounting, Management, and Management of public sector and administration, lasts for four academic years (eight semesters), upon completion, students acquire a total of 240 ECTS credits.

The curriculum of UNDERGRADUATE STUDY

Study of **BUSINESS ECONOMICS**

Year of study: 1st, 2nd, 3rd and 4th

Field of study: FINANCE AND ACCOUNTING

Status	ECTS	Hours		1st year
	30		1st semester	
MAN	6	60	Fundamentals of economy	
MAN	6	60	Mathematics	
MAN	6	60	Informatics	
MAN	6	60	Fundamentals of entrepreneurship	
MAN	3	30	Foreign business language A1	
MAN	3	30	Physical education 1	
	30		2nd semester	
MAN	6	60	Microeconomics 1	
MAN	6	60	Statistics	
MAN	6	60	Organization	
MAN	6	60	Marketing	
MAN	3	30	Foreign business language A2	
MAN	3	30	Physical education 2	
Status	ECTS	Hours		2nd year
	30		3rd semester	
MAN	6	60	Macroeconomics 1	
MAN	6	60	Accounting	
MAN	6	60	Management	
MAN	3	30	Microeconomics 2	
MAN	3	30	Statistical analysis	
OPT	6	60	Optional course:	
			Anthropology and psychology of management	

			Occupational psychology	
			Foreign business language B1	
			Commercial law	
	30		4th semester	
MAN	6	60	Economy	
MAN	6	60	International economics	
MAN	6	60	Public finance	
MAN	6	60	Accounting of small and middle-sized enterprises	
MAN	3	30	Macroeconomics 2	
MAN	3	30	Mathematical analysis for economists	
Status	ECTS	Hours		3rd year
	30		5th semester	
MAN	6	60	Business finance	
MAN	6	60	Economics of banking	
MAN	4	45	International business	
MAN	6	60	Financial accounting	
OPT	4	45	Optional course:	
			Economics and policy of investment	
			Transport and maritime economics	
			Financial markets and institutions	
			Accounting of budget users	
			Human resources management	
OPT	4	45	Optional course:	
			Financial mathematics	
			Organization and data analysis	
			Foreign business language B2	
			Introduction to modelling of business decision-making	
	30		6. semestar	
MAN	6	60	Strategic management	
MAN	6	60	Analysis and planning	
MAN	4	45	Risk management	
MAN	6	60	Financial institution accounting	
OPT	4	45	Optional course:	
			Data bases	

			Financing of small and middle-sized enterprises	
			Corporate restructuring and recovery	
OPT	4	45	Optional course:	
			Actuarial mathematics	
			Monetary economics	
			Foreign business language C1	
Status	ECTS	Hours	4th	year
	30		7th semester	
MAN	6	60	Cost accounting	
MAN	6	60	Financial management	
MAN	6	60	Microsystem of the EU	
MAN	4	45	Cost management	
OPT	4	45	Optional course:	
			Business communication	
			Economics and environmental protection policy	
			Application of mathematical models in economics	
OPT	4	45	Optional course:	
			securities	
			The Internet in Business	
			Economic development	
	30		8th semester	
MAN	6	60	Quantitative methods for business decision-making	
MAN	6	60	Managerial accounting	
MAN	6	60	Corporate taxation	
OPT	4	45	Optional course:	
			Controlling	
			Management information system	
			Business negotiation	
			Managerial economics	
OPT	4	45	Optional course:	
			Macroeconomics of the EU	
			Business policy of banks	
			Exchange rate management	
FP	4		The final paper	

The curriculum of UNDERGRADUATE STUDY

Study of **BUSINESS ECONOMICS**

Year of study: 1st, 2nd, 3rd and 4th

Field of study: MANAGEMENT

Status	ECTS	Hours		1st year
	30		1st semester	
MAN	6	60	Fundamentals of economics	
MAN	6	60	Mathematics	
MAN	6	60	Informatics	
MAN	6	60	Fundamentals of entrepreneurship	
MAN	3	30	Foreign business language A1	
MAN	3	30	Physical education 1	
	30		2nd semester	
MAN	6	60	Microeconomics 1	
MAN	6	60	Statistics	
MAN	6	60	Organization	
MAN	6	60	Marketing	
MAN	3	30	Foreign business language A2	
MAN	3	30	Physical education 2	
Status	ECTS	Hours		2nd year
	30		3rd semester	
MAN	6	60	Macroeconomics 1	
MAN	6	60	Accounting	
MAN	6	60	Management	
MAN	3	30	Microeconomics 2	
MAN	3	30	Statistical analysis	
OPT	6	60	Optional course:	
			Occupational psychology	
			Foreign business language B1	
			Commercial law	
	30		4th semester	
MAN	6	60	Economy	

MAN	6	60	International economics	
MAN	6	60	Monetary economics	
MAN	6	60	Anthropology and psychology of management	
MAN	3	30	Macroeconomics 2	
MAN	3	30	Mathematical analysis for economists	
Status	ECTS	hours		3rd year
	30		5th semester	
MAN	6	60	Business finance	
MAN	6	60	Economics of banking	
MAN	4	45	International business	
MAN	6	60	Human resources management	
OPT	4	45	Optional course:	
			Economics and policy of investment	
			Transport and maritime economics	
			Financial markets and institutions	
			Industrial policy	
OPT	4	45	Optional course:	
			Financial mathematics	
			Financial accounting	
			Foreign business language B2	
			Introduction to modelling of business decision-making	
	30		6th semester	
MAN	6	60	Strategic management	
MAN	6	60	Analysis and planning	
MAN	6	60	Operations management	
MAN	4	45	Business negotiation	
OPT	4	45	Optional course:	
			Data bases	
			Financing of small and middle-sized enterprises	
			Public finance	
			Corporate restructuring and recovery	
OPT	4	45	Optional course:	
			Actuarial mathematics	
			Accounting of small and middle-sized enterprises	

			Foreign business language C1	
Status	ECTS	Hours		4th year
	30		7th semester	
MAN	6	60	Cost accounting	
MAN	6	60	Quality management	
MAN	6	60	Microsystem of the EU	
MAN	4	45	Organization designing	
OPT	4	45	Optional course:	
			Economic development	
			Electronic business	
			Application of mathematical models in economics	
			Strategic marketing management	
OPT	4	45	optional course:	
			Financial management	
			The Internet in business	
			Auditing	
	30		8th semester	
MAN	6	60	Quantitative methods for business decision-making	
MAN	6	60	Controlling	
MAN	6	60	Managerial economics	
OPT	4	45	Optional course:	
			Management information systems	
			Organizational behavior	
			Business environment	
			Theory of organization	
OPT	4	45	Optional course:	
			Macroeconomics of the EU	
			Managerial accounting	
			Urban economics	
			Corporate taxation	
FP	4		The final paper	

The curriculum of UNDERGRADUATE STUDY

Study of **BUSINESS ECONOMICS**

Year of study: 1st, 2nd, 3rd and 4th

Field of study: MANAGEMENT OF PUBLIC SECTOR AND ADMINISTRATION

Status	ECTS	Hours	1st year
	30		1st semester
MAN	6	60	Fundamentals of economics
MAN	6	60	Mathematics
MAN	6	60	Informatics
MAN	6	60	Fundamentals of entrepreneurship
MAN	3	30	Foreign business language A1
MAN	3	30	Physical education 1
	30		2nd semester
MAN	6	60	Microeconomics 1
MAN	6	60	Statistics
MAN	6	60	Organization
MAN	6	60	Marketing
MAN	3	30	Foreign business language A2
MAN	3	30	Physical education 2
Status	ECTS	Hours	2nd year
	30		3rd semester
MAN	6	60	Macroeconomics 1
MAN	6	60	Accounting
MAN	6	60	management
MAN	3	30	Microeconomics 2
MAN	3	30	Statistical analysis
OPT	6	60	Optional course:
			Occupational psychology
			Foreign business language B1
			Commercial law
	30		4th semester
MAN	6	60	State management and rule of law

MAN	5	50	Organization 2	
MAN	7	70	Business finance	
OPT	6	60	Optional course:	
			International economics	
			Monetary economics	
Status	ECTS	Hours		3rd year
	30		5th semester	
MAN	5	50	Administrative law	
MAN	5	50	Budget management	
MAN	8	80	Project	
OPT	6	60	Optional course:	
			Human resources management	
			International business	
	30		6th semester	
MAN	5	50	Economics of BiH	
MAN	5	50	Monetary and public finance	
MAN	8	80	Organization of administration in BiH	
MAN	6	60	Professional practice	
OPT	6	60	Optional course:	
			Operations management	
Status	ECTS	Hours		4th year
	30		7th semester	
MAN	7	70	Methodology and technology of making a scientific work	
MAN	8	80	Economic development	
MAN	8	80	Great legal system	
MAN	7	70	International and BiH regulations and human rights protection	
	30		8th semester	
MAN	9	90	Office operations management	
MAN	9	90	Public-private partnership	
MAN	8	80	Public sector marketing	
FP	4		The final paper	

III. Study program: SECURITY STUDIES

Field of study: Criminalistics

Scientific goals of the undergraduate study Criminalistics is to introduce candidates with new theoretical and practical achievements, with achievements in the fields of other sciences and disciplines, on which the curriculum relies and achieves theoretical and methodological correspondence, and makes relevant contribution to understanding etiology and determination of categories and problems that affect and fulfill the scientific framework of the specified study.

The name of the undergraduate study represents a framework that provides students with scientific premises with the exact explanation of the phenomenon of security challenges, i.e. a combination of scientific-educational aspect with scientific research.

By accomplishing scientific goals, other social goals are achieved, that should make an important contribution to the progress of students who attend undergraduate study. It means that this study represents an important step and scientific and experiential guidance in eliminating gaps in development and education of highly specialized personnel, for scientific research in the field of safety and performing the most complex tasks in institutions of society.

Thus, education policy, on scientific grounds and through specified undergraduate study, implies scientific activity on methodological and scientific-practical preparation on a more efficient way of dealing with safety problems, that directly or indirectly burdens today's security environment.

Criminalistics is by its nature an interdisciplinary science. Its principles and rules have been applied since ancient times. In modern state that aims to be rule-of-law state, the place of criminalistics as a science should not be in question. It is an area that requires systematic and thorough education adjusted to the most developed societies.

Worldwide and in our country, criminalistics is recognized as a science sui generis, and it is widely known, among experts and primarily among laymen thanks to the mass media. The facts that give Criminalistics an attribute of science will be pointed out in education.

The facts that give Criminalistics an attribute of science are basically:

- 1) a separate subject of study and research,
- 2) specific approach to the process of criminalistic and legal research, and
- 3) special unique independent research methods (methodology of Criminalistics).

Although there are some skeptics, criminalistics is now considered as a science. This is based on the fact that it has its own methodological system through which it observes the existing rules of Criminalistics de lege lata, systematizes them and analyze them.

Within its scope, principles and institutes of Criminalistics are defined and shaped, and amendments de lege ferenda are proposed, according to development of actual and expected crime.

By determining mutual relations of its contents as rules of disclosure (heuristic aspect) and evidence (syllogistic aspect) of criminal acts, Criminalistics uses its own terms and concepts that has created under its own auspice. It is about criminalistic terminology, criminalistic conceptual apparatus. It contributes to interpretation of its rules and helps apply them adequately.

Within criminalistics, it is possible to talk about Criminalistics in the narrow sense, as a theory and dogmatism of Criminalistics that with its authority and scientific foundation becomes as an inevitable and unavoidable additional source for application of Criminalistics. Theory and practice of Criminalistics complement each other and together they contribute to a single goal and task of Criminalistics in ultima linea prevention and repression of crime.

Criminalistics has a national character today, because unversality of its scientific foundations and principles, its comparative and historical methods always give it a general meaning and international and universal features. Criminalistics operates from a position of its scientific independence and criticality and perception of all comparative data and scientific knowledge, that is not dependent on specific circumstances in a particular country. Therefore, criminalistics is international, universal and optimally free in judgement. As a result of the mentioned rule, Criminalistics slightly differs from country to country.

Criminalistics and material and gradual criminal law have a common social task to repress crime with repressive and preventive measures. Criminalistics has a task to respond to a number of questions important for answering the question: is there a reason to apply criminal law or the law of some other criminal behavior in a particular case? Its tasks related to the so-called preventive action, are also important for the common goals of the criminal law. It is believed that in many cases the criminal law is a "dead letter" without Criminalistics, and the

criminal law cannot be applied and its goals cannot be achieved without Criminalistics.

Undergraduate Security studies and criminalistics, the field of Criminalistics, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: **The bachelor of criminalistics** with a total of 180 ECTS credits.

Undergraduate Security studies and criminalistics, the field of Criminalistics, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: **The bachelor of criminalistics** with a total of 240 ECTS credits.

Professional titles will be in accordance with the Law on Professional Titles after its adoption.

The curriculum of undergraduate Security studies, the field of Criminalistics, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

1st year of study – 1st semester

No.	Course	L	E	ECTS
1.	Introduction to criminalistics	4	0	6
2.	Safety fundamentals	4	0	6
3.	Psychology	4	0	6
4.	Safety management	3	1	6
5.	Fundamentals of state and law	4	0	6
		Total ECTS 30		

1st year of study – 2nd semester

No.	Course	L	E	ECTS
1.	Security system of Bosnia and Herzegovina	4	0	6
2.	Methodology of research in criminal justice sciences	4	0	6
3.	Criminal tactics	2	2	6
4.	Human rights and safety	4	0	6
5.	Informatics	2	2	6
			Tota	al ECTS 30

2nd year of study – 3rd semester

No.	Course	L	E	ECTS
1.	Criminology with penology	4	0	6
2.	Criminal law	4	0	6

3.	Police and society	4	0	6	
4.	Criminalistic technique	3	1	6	
5.	Foreign and security policy of the European Union	4	0	6	
	Total ECTS 30				

2nd year of study – 4th semester

No.	Course	L	E	ECTS	
1.	National security	4	0	6	
2.	Criminal procedural law	4	0	6	
3.	Private security	4	0	6	
4.	Operative tactics	2	2	6	
5.	Optional course (1):				
	Victimology	4	0	6	
	Psychopathology	4	0	6	
	Total ECTS 30				

3rd year of study – 5th semester

No.	Course	L	E	ECTS
1.	Administrative law and administrative procedure	3	0	6
2.	Crisis management	3	1	8
3.	Criminalistic methods	3	0	8
4. and 5.	Optional course (2):			
	Fundamentals of detective service	3	0	4
	Traffic offences	3	0	4
	Criminal forensic science	3	1	4
			Tota	al ECTS 30

3rd year - 6th semester

No.	Course	L	Е	ECTS
1.	Criminal policy	3	1	4
2.	Crime analysis	3	1	7
3.	Criminalistic operation	3	1	7
4.	Optional course(1):			
	Juvenile delinquency	3	0	4

	Methods of detection of blood and sexual offences	3	0	4
5.	The final paper			8
			Total ECTS	

The curriculum of undergraduate Security studies, the field of Criminalistics, lasts for four academic years (eight semesters), upon completion, students acquire a total of 240 ECTS credits.

1st year of study – 1st semester

No.	Course	L	E	ECTS
1.	Introduction to criminalistics	4	0	6
2.	Safety fundamentals	4	0	6
3.	Psychology	4	0	6
4.	Safety management	3	1	6
5.	Fundamentals of state and law	4	0	6
	Total ECTS 30			tal ECTS 30

1st year of study – 2nd semester

No.	Course	L	E	ECTS
1.	Security system of Bosnia and Herzegovina		0	6
2.	Methodology of research in criminal justice sciences	4	0	6
3.	Criminal tactics	2	2	6
4.	Human rights and safety	4	0	6
5.	5. Informatics		2	6
	Total ECTS 30			

2nd year of study – 3rd semester

No.	Course	L	E	ECTS
1.	Criminology with penology	4	0	6
2.	Criminal law	4	0	6
3.	Police and society	4	0	6
4.	Criminalistic technique	3	1	6
5.	Foreign and security policy of the European Union	4	0	6
			Tota	al ECTS 30

2nd year of study – 4th semester

No.	Course	L	E	ECTS
1.	National security	4	0	6
2.	Criminal procedural law	4	0	6
3.	Private security	4	0	6
4.	Operative tactics	3	1	6
5.	Victimology	4	0	6
	Total ECTS 30			al ECTS 30

3rd year of study – 5th semester

No.	Course	L	Е	ECTS
1.	Administrative law and administrative procedure	3	0	6
2.	Crisis management		1	8
3.	Criminalistic methods	3	0	8
4. and 5.	Optional course (2):			
	Fundamentals of detective service	3	0	4
	Traffic offences	3	0	4
	Criminal forensic science	3	1	4
			Tota	al ECTS 30

3rd year of study – 6th semester

No.	Course		Е	ECTS
1.	Criminal policy	3	1	8
2.	Crime analysis		1	7
3.	Criminalistic operation	3	1	7
4. and 5.	Optional courses (2):	·		
	Methods of research of property criminality	3	0	4
	Juvenile delinquency	3	0	4
	Methods of detection of blood and sexual offences	3	0	4
			Tota	al ECTS 30

4th year of study – 7th semester

No.	Course	L	Е	ECTS
1.	Prognostics i crime prevention	3	0	7
2.	Police law	3	0	8
3.	Economic criminality	3	0	7
4. and 5.	Optional courses (2):			
	Ecological criminality	3	0	4
	Forensic traseology	3	0	4
	Computer crime	3	0	4
	Total ECTS 3			

4th year of study – 8th semester

No.	Course	L	E	ECTS
1.	Organized crime	3	1	6
2.	Terrorism			6
3.	Theories i sistemi sigurnosti	4	0	6
4.	International criminal law	4	0	6
5.	The final paper			6
		Total ECTS 30		

IV. Study program: Energetics

Field of study: Energy management and energy efficiency

Renewable energy sources Energy plant maintenance

Thermotechnics

Energetics is a branch of economy that deals with the study and exploitation of different energy sources and with electricity generation. Energetics is important for development of the entire society. Modern economic development of a country entirely depends on the available energy sources, their utilization and application in production and consumption.

Energetics is a highly profitable branch of economy. By starting the study of Energetics at "CEPS" High College, Bosnia and Herzegovina, Croatia, and particularly Herzegovina and Dalmatia get a unique place for education and development of professionals and businesses related to new technologies in the field of energetics and environment.

Since there is no such study in Bosnia and Herzegovina, and even in the entire wider region, this idea found fertile ground in scientific and academic circles.

European countries aim to reduce current consumption of the classical energy by 20% by 2020, and get 20% of electricity and 30% of heat energy from renewable sources by then.

It is important to begin educating the new generations of engineers who will contribute to sustainable development and free us from the great import of fossil fuels in the coming energy transition.

The whole planetary mind is faced with the fact that there are less and less classical energy sources, with the fact of climate changes with fatal predictions, enormous efforts and money are invested in increased energy efficiency and finding and application of new and renewable energy sources – for this reason, our initiative in this region is strongly supported.

Everybody understands the need of educating the personnel, so that Bosnia and Herzegovina wouldn't continue the practice of importing foreign knowledge, technology and products. The needs for personnel qualified for energy technology primarily result from strategic decisions of Bosnia and Herzegovina to base energy technology at the global high level, which is necessary for including Bosnia

and Herzegovina into international devision of labor and including into international integrations and the use of comparative advantages of geo-traffic position.

Study program is open and adapted for student mobility, free movement of students, access to study and learning and necessary services and free exchange of teachers and researchers in accordance with the Bologna process. Programs are comparable with similar programs from abroad and they are expressed in ECTS credits with the possibility of carrying out a part of program in English.

Program of Energetics study, fields of study: Energy management and energy efficiency, Renewable energy sources, Energy plant maintenance and Thermotechnics is oriented towards professional requirements of profiles of bachelor of energy management and energy efficiency engineering, bachelor of renewable energy sources engineering, bachelor of power plant maintenance engineering, and bachelor of thermotechnics engineering.

The study provides technical, technological and organizational education required for operation, maintenance, designing of energy plants.

Modern technology allows better use of natural resources, and opportunities open up for using previously unused resources. The use of power of wind and tide that is used with the use of modern technology, our ancestors believed that it was an impossible mission.

Modern technology provides ways to produce more food, carry more people and produce more products for the needs of society.

Energetics study is a study for excellence in education, scientific research and knowledge transfer, and application in the field of organization, energetics and complementary areas.

Field of study: Energy management and energy efficiency

Undergraduate Energetics Study, the field of Energy management and energy efficiency, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: **The Bachelor of Energetics engineering** - Energy management and energy efficiency with a total of 180 ECTS credits.

Undergraduate Energetics Study, the field of Energy management and energy efficiency, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: **The**

Bachelor of Energetics engineering - Energy management and energy efficiency with a total of 240 ECTS credits.

Professional titles will be in accordance with the Law on Professional Titles after its adoption.

The curriculum of undergraduate Energetics study, the field of Energy management and energy efficiency, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	8	mandatory
2.	Statics	60	5	mandatory
3.	Graphic communications	60	4	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics II	60	8	mandatory
2.	Kinematics	60	4	mandatory
3.	Programming	60	4	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Strength of materials	60	5	mandatory
6.	Foreign language II	60	4	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics III (Numerical mathematics and statistics)	60	8	mandatory
2.	Dynamics and oscillations	60	4	mandatory
3.	Machine elements I	60	4	mandatory
4.	Fundamentals of electrical engineering II	60	5	mandatory
5.	Fundamentals of electroenergetics	60	5	mandatory
6.	Physics	60	4	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Thermodynamics	60	6	mandatory
2.	Fluid mechanics	60	5	mandatory
3.	Machine elements II	60	5	mandatory
4.	Electrical machines	60	5	mandatory
5.	Basic elements of electric power systems	60	5	mandatory
6.	Chemistry	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	6	mandatory
2.	Engineering design	60	5	mandatory
3.	Heat and mass transfer	60	4	mandatory
4.	Ecology	60	4	mandatory
5.	Electric networks	60	5	mandatory
6.	Electric motor drives	60	3	mandatory

7.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Science of energy: principles of technologies and impact	60	7	mandatory
2.	Energy consumption and efficiency	60	4	mandatory
3.	Energy efficiency in the construction industry	60	5	mandatory
4.	Energy plants	60	5	mandatory
5.	Transport of energy sources	60	5	mandatory
6.	Quality of electrical energy	60	4	mandatory
			30	

The curriculum of undergraduate Energetics study, the field of Energy management and energy efficiency, lasts for four academic years (eight semesters), upon completion, students acquire a total of 240 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	8	mandatory
2.	Statics	60	5	mandatory
3.	Graphic communications	60	4	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics II	60	8	mandatory
2.	Kinematics	60	4	mandatory
3.	Programming	60	4	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Strength of materials	60	5	mandatory
6.	Foreign language II	60	4	mandatory
			30	

2.nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics III (Numerical mathematics and statistics)	60	8	mandatory
2.	Dynamics and oscillations	60	4	mandatory
3.	Machine elements I	60	4	mandatory
4.	Fundamentals of electrical engineering II	60	5	mandatory
5.	Fundamentals of electroenergetics	60	5	mandatory
6.	Physics 1)	60	4	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Thermodynamics	60	6	mandatory
2.	Fluid mechanics	60	5	mandatory
3.	Machine elements II	60	5	mandatory
4.	Electrical machines	60	5	mandatory
5.	Basic elements of electric power systems	60	5	mandatory

6.	Chemistry	60	4	mandatory
			30	

3rd year of studs/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	6	mandatory
2.	Engineering design	60	5	mandatory
3.	Heat and mass transfer	60	4	mandatory
4.	Ecology	60	4	mandatory
5.	Electric networks	60	5	mandatory
6.	Electric motor drives	60	3	mandatory
7.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Science of energy: principles of technologies and impact	60	7	mandatory
2.	Energy consumption and efficiency	60	4	mandatory
3.	Energy efficiency in the construction industry	60	5	mandatory
4.	Energy plants	60	5	mandatory
5.	Transport of energy sources	60	5	mandatory
6.	Quality of electrical energy	60	4	mandatory
			30	

4th year of study/7th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Electric lighting	60	8	mandatory
2.	measurement and simulation of	60	4	mandatory

	energy processes			
3.	Electric energy consumption management	60	5	mandatory
4.	Smart electrical installations	60	5	mandatory
5.	Energy efficiency of electrical devices and machines	60	4	mandatory
6.	Project		4	mandatory
			30	

4th year of study/8th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Heating and air conditioning	60	5	mandatory
2.	Cooling devices	60	5	mandatory
3.	Energy efficiency in industry	60	6	mandatory
4.	Environmental protection	60	5	mandatory
5.	Practice	60	5	mandatory
6.	The final paper		4	mandatory
			30	

Field of study: renewable energy sources

Undergraduate Energetics Study, the field of Renewable energy sources, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: **The Bachelor of Energetics engineering** – Renewable energy sources with a total of 180 ECTS credits.

Undergraduate Energetics Study, the field of Renewable energy sources, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: **The Bachelor of Energetics engineering** - Renewable energy sources with a total of 240 ECTS credits.

Professional titles will be in accordance with the Law on Professional Titles after its adoption. The curriculum of undergraduate Energetics study, the field of Renewable energy sources, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	8	mandatory
2.	Statics	60	5	mandatory
3.	Graphic communications	60	4	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics II	60	8	mandatory
2.	Kinematics	60	4	mandatory
3.	Programming	60	4	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Strength of materials	60	5	mandatory
6.	Foreign language II	60	4	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics III (Numerical mathematics and statistics)	60	8	mandatory
2.	Dynamics and oscillations	60	4	mandatory
3.	Machine elements I	60	4	mandatory
4.	Fundamentals of electrical engineering II	60	5	mandatory
5.	Fundamentals of electroenergetics	60	5	mandatory
6.	Physics	60	4	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Thermodynamics	60	6	mandatory
2.	Fluid mechanics	60	5	mandatory
3.	Machine elements II	60	5	mandatory
4.	Electrical machines	60	5	mandatory
5.	Basic elements of electric power systems	60	5	mandatory
6.	Chemistry	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	6	mandatory
2.	Engineering design	60	5	mandatory
3.	Heat and mass transfer	60	4	mandatory
4.	Ecology	60	4	mandatory
5.	Electric networks	60	5	mandatory
6.	Electric motor drives	60	3	mandatory

7.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Science of energy: principles of technologies and impact	60	8	mandatory
2.	Small electric power plants and wind turbines	60	5	mandatory
3.	Electric power plants	60	6	mandatory
4.	Management and exploitation of electric power systems	60	6	mandatory
5.	Renewable and secondary energy sources	60	5	mandatory
			30	

The curriculum of undergraduate Energetics study, the field of Renewable energy sources, lasts for four academic years (eight semesters), upon completion, students acquire a total of 240 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	8	mandatory
2.	Statics	60	5	mandatory
3.	Graphic communications	60	4	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics II	60	8	mandatory

2.	Kinematics	60	4	mandatory
3.	Programming	60	4	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Strength of materials	60	5	mandatory
6.	Foreign language II	60	4	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics III (Numerical mathematics and statistics)	60	8	mandatory
2.	Dynamics and oscillations	60	4	mandatory
3.	Machine elements I	60	4	mandatory
4.	Fundamentals of electrical engineering II	60	5	mandatory
5.	Fundamentals of electroenergetics	60	5	mandatory
6.	Physics 1)	60	4 30	mandatory

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Thermodynamics	60	6	mandatory
2.	Fluid mechanics	60	5	mandatory
3.	Machine elements II	60	5	mandatory
4.	Electrical machines	60	5	mandatory
5.	Basic elements of electric power systems	60	5	mandatory
6.	Chemistry	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	6	mandatory
2.	Engineering design	60	5	mandatory
3.	Heat and mass transfer	60	4	mandatory
4.	Ecology	60	4	mandatory
5.	Electric networks	60	5	mandatory
6.	Electric motor drives	60	3	mandatory
7.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Science of energy: principles of technologies and impact	60	8	mandatory
2.	Small electric power plants and wind turbines	60	5	mandatory
3.	Electric power plants	60	6	mandatory
4.	Management and exploitation of electric power systems	60	6	mandatory
5.	Renewable and secondary energy sources	60	5	mandatory
			30	

4th year of study/7th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Design of energy plants	60	8	mandatory
2.	Electric energy conversion	60	6	mandatory
3.	Distribution networks	60	6	mandatory
4.	Electricity market	60	6	mandatory
5.	Project		4	mandatory
			30	

4th year of study/8th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Influence of distributed sources on electrical network	60	6	mandatory
2.	Design of distributed sources and connection to electrical network	60	5	mandatory
3.	Power electronics	60	5	mandatory
4.	Digital electronics	60	5	mandatory
5.	switchyards and transformer substations	60	5	mandatory
6.	The final paper		4	mandatory
			30	

Field of study: Energy plant maintenance

Undergraduate Energetics Study, the field of Energy plant maintenance, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: **The Bachelor of Energetics engineering** – Energy plant maintenance with a total of 180 ECTS credits.

Undergraduate Energetics Study, the field of Energy plant maintenance, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: **The Bachelor of Energetics engineering** - Energy plant maintenance with a total of 240 ECTS credits.

Professional titles will be in accordance with the Law on Professional Titles after its adoption.

The curriculum of undergraduate Energetics study, the field of Energy plant maintenance, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	8	mandatory
2.	Statics	60	5	mandatory
3.	Graphic communications	60	4	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics II	60	8	mandatory
2.	Kinematics	60	4	mandatory
3.	Programming	60	4	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Strength of materials	60	5	mandatory

6.	Foreign language II	60	4	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics III (Numerical mathematics and statistics)	60	8	mandatory
2.	Dynamics and oscillations	60	4	mandatory
3.	Machine elements I	60	4	mandatory
4.	Fundamentals of electrical engineering II	60	5	mandatory
5.	Fundamentals of electroenergetics	60	5	mandatory
6.	Physics	60	4	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Thermodynamics	60	6	mandatory
2.	Fluid mechanics	60	5	mandatory
3.	Machine elements II	60	5	mandatory
4.	Electrical machines	60	5	mandatory
5.	Basic elements of electric power systems	60	5	mandatory
6.	Chemistry	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	6	mandatory
2.	Engineering design	60	5	mandatory

3.	Heat and mass transfer	60	4	mandatory
4.	Ecology	60	4	mandatory
5.	Electric networks	60	5	mandatory
6.	Electric motor drives	60	3	mandatory
7.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Maintenance	60	6	mandatory
2.	Electric power plants	60	4	mandatory
3.	Transport of energy sources	60	4	mandatory
4.	Electrical switching devices	60	4	mandatory
5.	Monitoring and maintenance of electric power systems	60	5	mandatory
6.	Design of energy plants	60	3	mandatory
7.	Project		4	mandatory
			30	

The curriculum of undergraduate Energetics study, the field of Energy plant maintenance, lasts for four academic years (eight semesters), upon completion, students acquire a total of 240 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	8	mandatory
2.	Statics	60	5	mandatory
3.	Graphic communications	60	4	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics II	60	8	mandatory
2.	Kinematics	60	4	mandatory
3.	Programming	60	4	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Strength of materials	60	5	mandatory
6.	Foreign language II	60	4	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics III (Numerical mathematics and statistics)	60	8	mandatory
2.	Dynamics and oscillations	60	4	mandatory
3.	Machine elements I	60	4	mandatory
4.	Fundamentals of electrical engineering II	60	5	mandatory
5.	Fundamentals of electroenergetics	60	5	mandatory
6.	Physics 1)	60	4	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Thermodynamics	60	6	mandatory
2.	Fluid mechanics	60	5	mandatory
3.	Machine elements II	60	5	mandatory
4.	Electrical machines	60	5	mandatory
5.	Basic elements of electric power systems	60	5	mandatory
6.	Chemistry	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	6	mandatory
2.	Engineering design	60	5	mandatory
3.	Heat and mass transfer	60	4	mandatory
4.	Ecology	60	4	mandatory
5.	Electric networks	60	5	mandatory
6.	Electric motor drives	60	3	mandatory
7.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Maintenance	60	6	mandatory
2.	Electric power plants	60	4	mandatory
3.	Transport of energy sources	60	4	mandatory
4.	Electrical switching devices	60	4	mandatory
5.	Monitoring and maintenance of electric power systems	60	5	mandatory
6.	Design of energy plants	60	3	mandatory
7.	Project	60	4	mandatory
			30	

4th year of study/7th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Turbines	60	5	mandatory
2.	Boilers	60	4	mandatory
3.	Technical diagnostics	60	5	mandatory
4.	reliability of electric power systems and elements	60	5	mandatory
5.	Maintenance and testing of electrical equipment	60	5	mandatory

6.	Pumps ventilators and turbocompressors	60	3	mandatory
7.	Project	60	3	mandatory
			30	

4th year of study/8th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Small electric power plants and wind turbines	60	5	mandatory
2.	Technical diagnostics II	60	4	mandatory
3.	Pressure tanks and pipelines	60	5	mandatory
4.	Maintenance and testing of electrical installations	60	5	mandatory
5.	Maintenance and testing of electrical machines	60	5	mandatory
6.	Machine hydraulics and pneumatics	60	3	mandatory
7.	Project	60	3	mandatory
			30	

Field of study: Thermotechnics

Undergraduate Energetics Study, the field of Thermotechnics, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: **The Bachelor of Energetics engineering** – Thermotechnics with a total of 180 ECTS credits.

Undergraduate Energetics Study, the field of Thermotechnics, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: **The Bachelor of Energetics engineering** - Thermotechnics with a total of 240 ECTS credits.

Professional titles will be in accordance with the Law on Professional Titles after its adoption.

The curriculum of undergraduate Energetics study, the field of Thermotechnics, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	8	mandatory
2.	Statics	60	5	mandatory
3.	Graphic communications	60	4	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics II	60	8	mandatory
2.	Kinematics	60	4	mandatory
3.	Programming	60	4	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Strength of materials	60	5	mandatory

6.	Foreign language II	60	4	mandatory
			30	

2st year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics III (Numerical mathematics and statistics)	60	8	mandatory
2.	Dynamics and oscillations	60	4	mandatory
3.	Machine elements I	60	4	mandatory
4.	Fundamentals of electrical engineering II	60	5	mandatory
5.	Fundamentals of electroenergetics	60	5	mandatory
6.	Physics	60	4	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Thermodynamics	60	6	mandatory
2.	Fluid mechanics	60	5	mandatory
3.	Machine elements II	60	5	mandatory
4.	Electrical machines	60	5	mandatory
5.	Basic elements of electric power systems	60	5	mandatory
6.	Chemistry	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	6	mandatory
2.	Engineering design	60	5	mandatory

3.	Heat and mass transfer	60	4	mandatory
4.	Ecology	60	4	mandatory
5.	Electric networks	60	5	mandatory
6.	Electric motor drives	60	3	mandatory
7.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Heating and air conditioning	60	7	mandatory
2.	Cooling devices	60	4	mandatory
3.	Central heating systems	60	5	mandatory
4.	Theory of ignition and combustion	60	5	mandatory
5.	Energy efficiency in the construction industry	60	5	mandatory
6.	Renewable and secondary energy sources	60	4	mandatory
			30	

The curriculum of undergraduate Energetics study, the field of Thermotechnics, lasts for four academic years (eight semesters), upon completion, students acquire a total of 240 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	8	mandatory
2.	Statics	60	5	mandatory
3.	Graphic communications	60	4	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics II	60	8	mandatory
2.	Kinematics	60	4	mandatory
3.	Programming	60	4	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Strength of materials	60	5	mandatory
6.	Foreign language II	60	4	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics III (Numerical mathematics and statistics)	60	8	mandatory
2.	Dynamics and oscillations	60	4	mandatory
3.	Machine elements I	60	4	mandatory
4.	Fundamentals of electrical engineering II	60	5	mandatory
5.	Fundamentals of electroenergetics	60	5	mandatory
6.	Physics 1)	60	4 30	mandatory

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Thermodynamics	60	6	mandatory
2.	Fluid mechanics	60	5	mandatory
3.	Machine elements II	60	5	mandatory
4.	Electrical machines	60	5	mandatory
5.	Basic elements of electric power systems	60	5	mandatory

6.	Chemistry	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	6	mandatory
2.	Engineering design	60	5	mandatory
3.	Heat and mass transfer	60	4	mandatory
4.	Ecology	60	4	mandatory
5.	Electric networks	60	5	mandatory
6.	Electric motor drives	60	3	mandatory
7.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Heating and air conditioning	60	7	mandatory
2.	Cooling devices	60	4	mandatory
3.	Central heating systems	60	5	mandatory
4.	Theory of ignition and combustion	60	5	mandatory
5.	Energy efficiency in the construction industry	60	5	mandatory
6.	Renewable and secondary energy sources	60	4	mandatory
			30	

4th year of study/7th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Boilers	60	8	mandatory
2.	Pumps ventilators and turbocompressors	60	4	mandatory
3.	measurement and simulation of energy processes	60	5	mandatory
4.	Smart electrical installations	60	5	mandatory
5.	Energy consumption and efficiency	60	5	mandatory
6.	Project		3	mandatory
			30	

4th year of study/8th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Maintenance	60	6	mandatory
2.	Design of systems for heating and air conditioning	60	5	mandatory
3.	Maintenance and testing of electrical installations	60	5	mandatory
4.	Pressure tanks and pipelines	60	5	mandatory
5.	Energy efficiency of electrical devices and machines	60	5	mandatory
6.	The final paper		4	mandatory
			30	

V. Study program: Work safety and fire protection

Field of study: Work safety
Fire protection

Field of study: Work safety

Work safety is a set of technical, scientific, legal, psychological, pedagogical and other activities that help to detect and eliminate the dangers that threaten the lives and health of people at work and determine the measures, procedures and rules in order to remove or reduce these dangers.

The purpose of work safety is to create safe working conditions in order to prevent injuries at work, occupational diseases and accidents at work, that is to reduce possible harmful consequences if the danger cannot be eliminated. Implementation of work safety is not limited to occupational diseases, but there is an effort to prevent any disease or injury, while greater attention is paid to occupational diseases.

In a working environment, there are many influences on health and safety of workers. The consequences of the unfavorable working conditions are injuries at work, occupational diseases, workers load, costs for employer... work safety engineers take account of safety at work. Adapting of the working environment to man and adapting of man to the working environment, work safety engineers attempt to reduce the unpleasant dangers at work and mitigate their consequences.

Work safety engineers determine procedures, methods and equipment for protection at work.

Work safety is mandatory and prescribed by laws. Work safety engineers apply legal rules in various areas of human activity, in every day situations. In every company, employer is obliged to employ the so-called safety experts, especially if the company has more than 50 employees.

Bachelor of safety engineering can implement safety and health at work if that implies: making the act of risk assessment for all workplaces in the work environment, making elaborate for gaining right to pensionable service with increased duration, and the revisions; performing tasks related to security and health at work; tasks to protect health of employees: preventive examinations and testing of work equipment (machines, devices, facilities, installations, etc.); making guidelines for safe work; testing the work environment, chemical and physical hazards, microclimate, biological hazards; etc.

The basis for the implementation of work safety is risk assessment. Risk assessment is made in accordance with the recognized methods and is used to determine the existence of risk, type of risk and dimension of

risk. After the performed analysis, proposals of measures to reduce the risk and the control of implementation of determined measures are given.

Undergraduate Work safety and fire protection study, the field of Work safety, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: **The Bachelor of Work safety engineering** with a total of 180 ECTS credits.

Undergraduate Energetics Study, the field of Work safety, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: **The Bachelor of Work safety engineering** with a total of 240 ECTS credits.

Professional titles will be in accordance with the Law on Professional Titles after its adoption.

The curriculum of undergraduate Work safety and fire protection study, the field of Work safety, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	7	mandatory
2.	Technical mechanics	60	5	mandatory
3.	Graphic communications	60	5	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Environmental protection (Health protection)	60	8	mandatory
2.	Labor law	60	4	mandatory
3.	Programming	60	5	mandatory
4.	Fundamentals of electrical	60	5	mandatory

	engineering l			
5.	Mechanical engineering	60	5	mandatory
	fundamentals			
6.	Foreign language II	60	3	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	The risks of fire and explosions	60	7	mandatory
2.	Risks when using electricity	60	4	mandatory
3.	Statistics	60	5	mandatory
4.	Risk of hazardous substances	60	4	mandatory
5.	Risk when using machines	60	4	mandatory
6.	Physics	60	3	mandatory
7.	Chemistry	60	3	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Psychophysiology of work	60	7	mandatory
2.	Protection in transport	60	4	mandatory
3.	Thermodynamics	60	5	mandatory
4.	Theory of organization of education for protection	60	5	mandatory
5.	Protection and security	60	5	mandatory
6.	Toxicology	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	8	mandatory

2.	Engineering design	60	5	mandatory
3.	Electromagnetic radiation and	60	4	mandatory
	protection			
4.	Ecology	60	5	mandatory
5.	Knowledge of goods	60	5	mandatory
6.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Safety in technological processes	60	8	mandatory
2.	Noise and vibrations	60	4	mandatory
3.	Electrical installations and security measures	60	5	mandatory
4.	Industrial waste management	60	5	mandatory
5.	Special electrical installations	60	5	mandatory
6.	Reliability and safety	60	3	mandatory
			30	

The curriculum of undergraduate Work safety and fire protection study, the field of Work safety, lasts for four academic years (eight semesters), upon completion, students acquire a total of 240 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	7	mandatory
2.	Technical mechanics	60	5	mandatory
3.	Graphic communications	60	5	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Environmental protection (Health protection)	60	8	mandatory
2.	Labor law	60	4	mandatory
3.	Programming	60	5	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Mechanical engineering fundamentals	60	5	mandatory
6.	Foreign language II	60	3	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	The risks of fire and explosions	60	7	mandatory
2.	Risks when using electricity	60	4	mandatory
3.	Statistics	60	5	mandatory
4.	Risk of hazardous substances	60	4	mandatory
5.	Risk when using machines	60	4	mandatory
6.	Physics	60	3	mandatory
7.	Chemistry	60	3	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Psychophysiology of work	60	7	mandatory
2.	Protection in transport	60	4	mandatory
3.	Thermodynamics	60	5	mandatory
4.	Theory of organization of education for protection	60	5	mandatory
5.	Protection and security	60	5	mandatory

6.	Toxicology	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	8	mandatory
2.	Engineering design	60	5	mandatory
3.	Electromagnetic radiation and protection	60	4	mandatory
4.	Ecology	60	5	mandatory
5.	Knowledge of goods	60	5	mandatory
6.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Safety in technological processes	60	8	mandatory
2.	Noise and vibrations	60	4	mandatory
3.	Electrical installations and security measures	60	5	mandatory
4.	Industrial waste management	60	5	mandatory
5.	Special electrical installations	60	5	mandatory
6.	Reliability and safety	60	3	mandatory
			30	

4th year of study/7th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Protection when using electricity at construction sites and public areas	60	8	mandatory
2.	Work safety regulation and	60	4	mandatory

	surveillance			
2	Comfort of the working	60	Е	mandatory
٥.	environment	00)	mandatory
4.	Risk of mechanical actions	60	5	mandatory
5.	Biomechanics	60	5	mandatory
6.	Project		3	mandatory
			30	

4th year of study/8th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Work safety in activities of electric power industry	60	8	mandatory
2.	maintenance	60	4	mandatory
3.	Pressure tanks and pipelines	60	4	mandatory
4.	Ergonomic designing	60	5	mandatory
5.	Practice	60	5	mandatory
6.	The final paper		4	mandatory
			30	

Field of study: fire protection

The basic goal of program for fire protection is training students to apply scientific and professional achievements in solving problems of fire protection and for development and management of fire protection systems.

Specific goals of the program are to acquire knowledge and skills for: analysis and risk assessment for fire and explosion, development and application of methodologies, methods, tools and procedures in the management of the fire and explosion protection systems, control in fire protection systems, expertise in fires and explosions, organization and management of fire protection system, designing and management of quality of fire protection system, strategic planning and development of fire protection system, permanent education and development of knowledge system in the field of fire protection, innovation activities and teamwork.

By mastering the study program students acquire professional competence for: assessment and assurance of fire and explosion risk, monitoring in the area of fire and explosion protection, optimization and management of available resources in fire protection system, making report on the status of fire and explosion protection, making plans and technical documentation in the area of fire and explosion protection, design of system for monitoring, alarm and extinguishing of fire, organization and management of interventions, rescue, evacuation and rehabilitation of fire and explosions, expertise of fire and explosions, education and knowledge management in the area of explosion and fire protection, training, professional selection and development of skills in the area of explosion and fire protection, making normative acts in the area of explosion and fire protection, methodology development, methods and procedures for the management of the fire protection system, development of methods and metrics for effectiveness assessment of the fire protection system, project and innovation management in the fire protection system, organization and management of the fire protection system, application of information technology in fire protection engineering.

Undergraduate Work safety and fire protection study, the field of Fire protection, lasts for three academic years (six semesters), upon completion, students are awarded a professional title: **The Bachelor of Fire protection engineering** with a total of 180 ECTS credits.

Undergraduate Energetics Study, the field of Fire protection, lasts for four academic years (eight semesters), upon completion, students are awarded a professional title: **The Bachelor of Fire protection engineering** with a total of 240 ECTS credits.

The curriculum of undergraduate Work safety and fire protection study, the field of Fire protection, lasts for three academic years (six semesters), upon completion, students acquire a total of 180 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	7	mandatory
2.	Technical mechanics	60	5	mandatory
3.	Graphic communications	60	5	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Environmental protection (Health protection)	60	8	mandatory
2.	Labor law	60	4	mandatory
3.	Programming	60	5	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Mechanical engineering fundamentals	60	5	mandatory
6.	Foreign language II	60	3	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	The risks of fire and explosions	60	7	mandatory
2.	Risks when using electricity	60	4	mandatory
3.	Statistics	60	5	mandatory
4.	Risk of hazardous substances	60	4	mandatory
5.	Risk when using machines	60	4	mandatory
6.	Physics	60	3	mandatory
7.	Chemistry	60	3	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Psychophysiology of work	60	7	mandatory
2.	Protection in transport	60	4	mandatory
3.	Thermodynamics	60	5	mandatory
4.	Theory of organization of education for protection	60	5	mandatory
5.	Protection and security	60	5	mandatory

6.	Toxicology	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	8	mandatory
2.	Engineering design	60	5	mandatory
3.	Electromagnetic radiation and protection	60	4	mandatory
4.	Ecology	60	5	mandatory
5.	Knowledge of goods	60	5	mandatory
6.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Fire protection in technological processes	60	8	mandatory
2.	Theory of ignition and combustion	60	4	mandatory
3.	Means for extinguishing fire	60	5	mandatory
4.	Alarm systems	60	5	mandatory
5.	Reliability and safety	60	5	mandatory
6.	Importance of prevention in fire protection	60	3	mandatory
			30	

The curriculum of undergraduate Work safety and fire protection study, field of study: Fire protection, lasts for four academic years (eight semesters), upon completion, students acquire a total of 240 ECTS credits.

1st year of study/1st semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Mathematics I	60	7	mandatory
2.	Technical mechanics	60	5	mandatory
3.	Graphic communications	60	5	mandatory
4.	Fundamentals of informatics	60	5	mandatory
5.	Materials	60	5	mandatory
6.	Foreign language I	60	3	mandatory
			30	

1st year of study/2nd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Environmental protection (Health protection)	60	8	mandatory
2.	Labor law	60	4	mandatory
3.	Programming	60	5	mandatory
4.	Fundamentals of electrical engineering I	60	5	mandatory
5.	Mechanical engineering fundamentals	60	5	mandatory
6.	Foreign language II	60	3	mandatory
			30	

2nd year of study/3rd semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	The risks of fire and explosions	60	7	mandatory
2.	Risks when using electricity	60	4	mandatory
3.	Statistics	60	5	mandatory
4.	Risk of hazardous substances	60	4	mandatory

5.	Risk when using machines	60	4	mandatory
6.	Physics	60	3	mandatory
7.	Chemistry	60	3	mandatory
			30	

2nd year of study/4th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Psychophysiology of work	60	7	mandatory
2.	Protection in transport	60	4	mandatory
3.	Thermodynamics	60	5	mandatory
4.	Theory of organization of education for protection	60	5	mandatory
5.	Protection and security	60	5	mandatory
6.	Toxicology	60	4	mandatory
			30	

3rd year of study/5th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Engineering measurements	60	8	mandatory
2.	Engineering design	60	5	mandatory
3.	Electromagnetic radiation and protection	60	4	mandatory
4.	Ecology	60	5	mandatory
5.	Knowledge of goods	60	5	mandatory
6.	Engineering economics	60	3	mandatory
			30	

3rd year of study/6th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Fire protection in technological processes	60	8	mandatory
2.	Theory of ignition and combustion	60	4	mandatory
3.	Means for extinguishing fire	60	5	mandatory
4.	Alarm systems	60	5	mandatory
5.	Reliability and safety	60	5	mandatory
6.	Importance of prevention in fire protection	60	3	mandatory
			30	

4th year of study/7th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Fire protection due to action of static electricity and atmospheric discharges	60	8	mandatory
2.	Fire protection regulation and surveillance	60	4	mandatory
3.	Fire and explosion protection	60	5	mandatory
4.	Intervention and rescue equipment	60	5	mandatory
5.	Heat and mass transfer	60	5	mandatory
6.	Project		3	mandatory
			30	

4th year of study/8th semester

No.	COURSE	TOTAL NO. OF HOURS	ECTS	COURSE STATUS
1.	Fire protection in activities of electric power industry	60	7	mandatory
2.	Tactics of firefighting interventions and rescue	60	4	mandatory
3.	Building fire safety	60	5	mandatory
4.	Maintenance	60	5	mandatory
5.	Practice		5	mandatory
6.	The final paper		4	mandatory
			30	

VI. Study program: Health studies

Field of study: Nursing, Sanitary Engineering, Physiotherapy, Geriatric Studies

The contemporary development of science and its contributing disciplines, modern technology, growing number of inhabitants in cities and general migrations of people had significantly affected the way of life of a modern man. The tasks presented at the individuals, families and communities in general affect the health and health conditions as well as the health system. The transitions years of the third century enlisted chronical, non-infectious diseases, malign diseases, traumatism as the most occurring health conditions. However, a certain increase in infectious diseases has been noticed. New technological standards had been introduced in the processes of treating patients and nursing. It has been proven that the use of technology, both with medicaments leads to dehumanization, which is a deeply incorporated factor in developed countries healthcare systems.

In the last decades, as a counterbalance, The World Health Organization started a movement directed to health and its improvement. The main aims of the "Health for All" project are improving and maintain health throughout knowledge, free decision-making and responsibility, together with ensuring high quality of living in health and sickness (WHO – European Health 21 – WHO Regional Committee for Europe, Copenhagen, 1998.). One of the most important recommendations of WHO is implementation Of Aim 18- The Development of Human Resources in Healthcare. All European Union member states need to ensure that all health workers, both in healthcare system and its contributing fields, have the adequate knowledge, perspectives and abilities with the aim of preserving and improving health.

By mastering the curriculum in Nursing, Sanitary engineering, Physiotherapy and Geriatric Studies, the students will acquire both the respected knowledge in the theoretical parts of the subjects, and the specific skills and expertise in practical and operational application of the awarded professional qualifications.

CURRICULUM STUDY COURSE: HEALTH STUDIES

I SEMESTER (GENERAL SUBJECTS)

Subjects	Р	Α	L	ECTS
1. Microbiology and parasitology	3	0	1	6
2. Chemistry	3	0	2	6
3. Introduction to Medicine	2	1	0	4
4. Computer evaluation of laboratory data	2	0	0	6
5. General principles of Healthcare	4	0	3	8
Total: 5 subjects				

II SEMESTER (GENERAL SUBJECTS)

Subjects	Р	Α	L	ECTS
1. Anatomy	3	0	2	7
2. Histology	3	0	2	7
3. Phisiology	3	0	2	7
4. Medical psychology	2	0	1	3
5. German language	2	0	2	6
Total: 5 subjects				

III SEMESTER (GENERAL SUBJECTS)

Subjects	Р	Α	L	ECTS
1. Medical statistics	2	1	0	6
2. Epidemiology	3	0	2	8
3. Medical dietetics	2	0	2	6
4. Medical informatics	3	0	2	6
5. Biomechanics	3	0	0	4
Total: 5 subjects				

IV SEMESTER (GENERAL SUBJECTS)

Subjects	Р	Α	L	ECTS
1. Pathology	3	0	2	6
2. Pathophysiology	3	0	3	7
3. Pharmacology	3	0	3	7
4. Promotion of Health	2	1	0	5
5. Healthcare Organization	2	0	1	5
Total: 5 subjects				

Field of study: Nursing

Nursing Studies enables students to gain skills and expertise related to the procedures, triage and health care in general medicine, neurology, infectology, dermovenerology, otorhinolaryngology, ophthalmology, surgery, gynecology and obstetrics, neonatology, pediatric, oncology, emergency medicine and with life-threatening patients, treatment of patients in early rehabilitation in clinical and community practice; psychiatry patients and behavior disorders, promoting mental health in the community; general healthcare and nursing evaluation and diagnosis in general medicine, palliative care and a multidisciplinary approach in treating elderly generation.

VI SEMESTER (STUDIY COURSE: NURSING - 180/240 ECTS)

Subjects	Р	Α	L	ECTS
1. Internal Medicine ant treating internal medicine patients	5	0	5	8
2. Publich Health	3	0	2	8
3. Otorhinolaryngology	3	0	3	8
4. Healthcare of Geriatrics patients	2	0	0	6
Total: 4 subjects				

VI SEMESTER (STUDY COURSE: NURSING - 180 ECTS)

Subjects	Р	Α	L	ECTS
1. Gynecology, obstetrics and female healthcare	4	0	3	8
2. Clinical practice I	0	0	7	8
3. Healthcare of Geriatrics patients II	2	0	2	6
4. Optional Subjects (student chooses one of the subjects)	2	0	0	3
- English Language				
- Life before Birth				
5. Final paper				5
Total: 5 subjects				

VI SEMESTER (STUDY COURSE: NURSING - 240 ECTS)

Subjects	Р	Α	L	ECTS
1. Gynecology, obstetrics and female healthcare	4	0	3	8
2. Clinical practice II	0	0	7	8
3. Healthcare of Geriatrics patients II	2	0	2	6
4. Healthcare of MEntally,-challenged patients	1	0	0	5
5. Optional Subjects (student chooses one of the subjects)	2	0	0	3
- English Language				
- Life before Birth				
Total: 5 subjects				

VII SEMESTER (STUDY COURSE: NURSING)

Subjects	Р	Α	L	ECTS
1. Clinical Practice II	0	0	5	8
2. Ophtalmology	2	0	1	6
3. Dermovenerology	2	0	1	6
4. Rehabilitation in Nursing	2	0	1	5
5. Models of medical practice	1	0	2	5
Total: 5 subjects				

VIII SEMESTER (STUDY COURSE: NURSING)

Subjects	Р	Α	L	ECTS
1. Neurology	4	0	4	8
2. Psychiatry and psychiatrical Care of psychiatrical patients	4	0	3	8
3. Oncology	2	0	0	4
4. Methodology of scientific research paper	2	0	1	5
5. Final paper				5
Total: 5 subjects				

Field of study: Sanitary Engineering

Sanitary Engineering Studies award competences and skills for implementing: legislative regulations, EU regulations and ISO standards applying in sanitary health system; the principles of inspections, social and medical aspects of health and disease, sanitary inspection of medical and other institutions; reinforcing public health systems in communities; individually solving ecological problems of urban environment, environment risks, working-environment conditions, hygienic and sanitary control of production and distribution of food supplies, drinking water, up-to-date methods of collecting and transporting waste, wastewater, monitoring the air quality; working with molecular- biotechnological methods, identification of microorganisms; and a general multidisciplinary approach of preserving the health of people based on presented results.

CURRICULUM STUDY COURSE: SANITARY ENGINEERING

V SEMESTER (STUDY COURSE: SANITARY ENGINEERING - 180/240 ECTS)

Subjects	Р	Α	L	ECTS
1. Waste Management	2	0	2	5
2. Physical and chemical analysis of food and water	3	0	1	6
3. General principles of technology and food preserving	3	0	1	6
4. Publich Health	3	0	2	8
5. Sanitary Inspection	3	0	1	5
Total: 5 subjects				

VI SEMESTER (SANITARY ENGINEERING - 180 ECTS)

Subjects	Р	Α	L	ECTS
1. Toxicology	2	0	1	6
2. Microbiological analysis of food and water	3	0	1	7
3. Practical Training I				8
4. Optional Subjects (student chooses one of the subjects)	2	0	0	3
- English language				
- Communication Skills				
5. Final paper				6
Total: 5 subjects				

VI SEMESTER (STUDY COURSE: SANITARY ENGINEERING - 240 ECTS)

Subjects	Р	Α	L	ECTS
1. Toxicology	2	0	1	6
2. Microbiological analysis of food and water	3	0	1	7
3. Practical Training I	3	0	2	8
4. Drinking water Technology	3	0	1	6
5. Optional Subjects (students chooses one of the subjects)	2	0	0	3
- English Language				
- Communication Skills				
Total: 5 subjects				

VII SEMESTER (STUDY COURSE: SANITARY ENGINEERING)

Subjects	Р	Α	L	ECTS
1. Clinical Practice II				8
2. Healthcare Management	2	0	1	5
3. Organization of healthcare institutions	2	0	1	5
4. Nutrition with sanitary control	2	0	2	7
5. Healthcare system and healthcare politics	2	0	2	5
Total: 5 subjects				

VIII SEMESTER (STUDY COURSE: SANITARY ENGINEERING)

Subjects	Р	Α	L	ECTS
1. Interventional epidemiology	2	0	2	8
2. Clinical Practice III				8
3. Methodology of scientific research paper	2	0	1	5
4. Final paper				9
Total: 4 subjects				

Field of study: Physiotherapy

Physiotherapy Studies offer the competences and skills of procedure and applying of: physical medicine, rehabilitation and kinesiology, physical modalities in early and rehabilitation in clinical and communities practices; rheumatology diseases, technics in pulmonology and cardiology diseases; contraindications related to physiotherapy; neurological and dermatological propaedeutic; neurological rehabilitations; child supervision and nursing in health and sickness; applying different procedures of habilitation or rehabilitation; occupational therapy, psychiatry patients and behavior disorders, promoting mental health in the community, active assisting during diagnostical, therapeutical, orthopedical and trauma procedures; applying orthopedic prosthetic equipment, exercises in disabled patients, and functional evaluation after physiotherapeutical treatments.

CURRICULUM STUDY PROGRAM: PHYSIOTHERAPY

V SEMESTER (STUDY COURSE: PHYSIOTHERAPY - 180/240 ECTS)

Subjects	Р	Α	L	ECTS
1. Clinical kinesiology	3	0	1	5
2. Physiotherapy in orthopedics	2	0	2	5
3. Physical factors in therapy	3	0	2	6
4. Clinical medicine I	3	0	0	7
5. Rheumatology	3	0	2	7
Total: 5 subjects				

VI SEMESTER (STUDY COURSE: PHYSIOTHERAPY - 180 ECTS)

Subjects	Р	Α	L	ECTS
1. Clinical medicine II	3	0	0	7
2. Neurology	3	0	2	8
3. Pediatrics	2	0	2	5
4. Optional Subjects (student chooses one of the subjects)	2	0	1	3
- English Language				
- Communication Skills				
5. Final paper				7
Total: 5 subjects				

VI SEMESTER (STUDY COURSE: PHYSIOTHERAPY 240 ECTS)

Subjects	Р	Α	L	ECTS
1. Clinical medicine II	2	0	2	7
2. Neurology	3	0	2	8
3. Pediatrics	2	0	2	5
4. Kinesiotherapy skills	2	0	4	7
5. Optional Subjects (student chooses one of the subjects)	2	0	1	3
- English Language				
- Communication Skills				
Total: 5 subjects				

VII SEMESTER (STUDY COURSE: PHYSIOTHERAPY)

Subjects	Р	Α	L	ECTS
1. Clinical medicine III	3	0	0	7
2. Physiotherapy ecaluation	2	0	2	6
3. Physiotherapy in rheumatology	2	0	1	4
4. Clinical Practice III	0	0	8	6
5. Kinesiotherapy skills I	2	0	4	7
Total: 5 subjects				

VII SEMESTER (STUDY COURSE: PHYSIOTHERAPY)

Subjects	Р	Α	L	ECTS
1. Distinctive topics related to physiotherapy	1	0	2	6
2. Physiotherapy in geriatrics	2	0	3	7
3. Basics of working therapy with muscular-bone neurological	2	0	0	4
damage				
4. Methodology of scientific research paper	2	0	1	5
5. Final paper				8
Total: 5 subjects				

Field of study: Geriatric Studies

Geriatric Studies course awards competences and skills in examination, diagnosing, and treating of senior individuals with emphasis on the importance of approach to the senior patient, as well as triage of patients in hospital conditions or institutions that offer care for senior citizens. Skills acquired in this course relate to the field of preventive medical measures, measures of early rehabilitation and detection of the most common diseases and heath conditions in this age group. During Geriatric Studies, students acquire the knowledge in pathogenesis, clinical condition and therapies of the prevalent diseases and conditions occurring in this population, with emphasizing the specific attributes of this age group compared to the active working-population. Priority is also given to the importance of preventive medical measures and detection of the most common diseases that are implemented in eldercare. During the course, students acquire skills in the process of nursing, from approaching the senior patient, triage, to the planning of medical care in hospital conditions or institutions for eldercare. Students also gain skills in the field of preventive medical measurements, ways of early rehabilitation and the methods of detection of the most common diseases and health conditions of this age group. The basic principles of Geriatric Studies are acknowledging the latest medical issues in geriatric population with emphasis to the most prevalent differences in clinical manifestation, diagnostics, treating the disease and conditions. Interactive methods of education in forms of workshops and diagnostical and treatment evaluations based on presented cases, and case studies.

V SEMESTER (STUDY COURSE: GERIATRICS - 180/240 ECTS)

Subjects	Р	Α	L	ECTS
1. Basics of Geriatrics	1	0	2	8
2. Geriatrics and Palliative care	2	0	2	8
3. Healthcare system and healthcare institutions management	2	0	2	8
4. Nursing of Geriatrics patients I	2	0	0	6
Total: 4 subjects				

VI SEMESTER (STUDY COURSE: GERIATRICS - 180 ECTS)

Subjects	Р	Α	L	ECTS
1. Gerontology	2	0	2	6
2. Neurology	3	0	2	8
3. Nursing of Geriatrics patients II	2	0	2	6
4. Optional Subjects (student chooses one of the subjects)	2	0	1	3
- English Language				
- Communication Skills				
5. Final paper				7
Total: 5 subjects				

VI SEMESTER (STUDY COURSE: GERIATRICS - 240 ECTS)

Subjects	Р	Α	L	ECTS
1. Gerontology	2	0	2	6
2. Neurology	3	0	2	8
3. Nursing of Geriatrics patients II	2	0	2	6
4. Physiotherapy in Geriatrics	2	0	3	7
5. Optional Subjects (student chooses one of the subjects)	2	0	1	3
- English Language				
- Communications Skills				
Total: 5 subjects				

VII SEMESTER (STUDY COURSE: GERIATRICS)

Subjects	Р	Α	L	ECTS
1. Nursing of Geriatrics patients III	2	0	2	8
2. Healthcare psychology	2	0	1	7
3. Nursing of dying patients	2	0	2	7
4. Nutrition	1	0	1	5
5. Types of geriatrics healthcare institutions	1	0	0	3
Total: 5 subjects				

VIII SEMESTER (STUDY COURSE: GERIATRICS)

Subjects	Р	Α	L	ECTS
1. Nursing of Geriatrics patients IV	2	0	2	8
2. Healthy and sick ageing	2	0	0	5
3. Internship				4
4. Methodology of scientific research paper	2	0	1	5
5. Final paper				8
Total: 5 subjects				

VII. Information technology

Study program: Information Technology, with the study direction: Information systems and technology has the fundamental objective of quality education of students who will be able to successfully work on planning, design, construction and maintenance of information systems in the private and public sectors.

The level of knowledge and understanding that the student acquires is sufficient to enable professional engineering work and solving medium-complex problems in practice. Through the general knowledge of information systems and technology, the student is able to make software support, solution implementation and effective use of computers at the level of the operating system and office applications and to design databases.

The need for the indicated profile of staff is evident from the comparative analysis of the current situation of the number and quality of staff working on similar tasks in Bosnia and Herzegovina and the developed countries that can serve as an example. The fact that the European Union currently lacks about 400,000 IT professionals illustrates the justification for the establishment of this study at the regional level.

Field of study: Information technology

The curriculum connects systematic approach and methods with basic engineering skills in the domain of information technology. Technology is being taken in the broad sense to include integrally observing of technical solutions. Understanding and modeling of the organizational process and the necessary IT support provides the basis for a successful business and activity.

Training during the three-year / four-year study of information technology gives students practical knowledge required to fit in with the greatest possible efficiency into the working environment at their workplaces. Study program Information Technology is organized for full time and part-time students.

Expertise is the foundation for the development and application of information technology. Expertise combines action of the mind and work of the hands. Expertise in ICT sector is successful only if it's innovative and creative. It is the basis of security both for the students and lecturers.

Information Systems and Technologies 180 ECTS – three-year study

I year – I Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Discrete Mathematics	IST1	3P+2V	6
2. Introduction to Programming	IST2	3P+2V	6
3. Introduction to Information Technologies	IST3	3P+2V	7
4. Introduction to Operative Systems	IST4	3P+2V	6
5. English Language	IST5	3P+2V	5
- Total: 5 subjects			30

I year – II Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Introduction to Databases	IST6	3P+2V	7
Architecture and Organization of Computer Systems	IST7	3P+2V	6
3. Programming Methods and Abstractions	IST8	3P+2V	6
4. Information Systems in Office Management	IST9	3P+2V	6
5. Algorithms and Structure of Data	IST10	3P+2V	5
- Total: 5 subjects			30

II year – III Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Data Analysis	IST11	3P+2V	6
2. Digital Economy	IST12	3P+2V	6
3. Business Informatization	IST13	3P+2V	5
4. Principles of Software Engineering	IST14	3P+2V	6
5. Program Tools	IST15	3P+2V	7
- Total: 5 subjects			30

II year- IV Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Modeling Business Rules	IST16	3P+2V	5
2. Basics of Computer Communication	IST17	3P+2V	6
Technologies			
3. Object-oriented Analysis and Design	IST18	3P+2V	7
4. Basics of E-Business	IST19	3P+2V	6
5. Database Management Systems	IST20	3P+2V	6
- Total: 5 subjects			30

III year – V Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. IT Management	IST21	3P+2V	6
2. Server Operating Systems and Administration	IST22	3P+2V	6
3. Projecting Information Systems	IST23	3P+2V	7
4. Information Systems Management	IST24	3P+2V	6
 5. Optional Subjects (Student chooses one subject): Server Virtualization Services Establishing Reliable Information Systems 	IST25 IST26	3P+2V	5
- Total: 5 subjects			30

III year - VI Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Content Management Systems	IST27	3P+2V	6
Administration and Managing Computer Networks	IST28	3P+2V	6
3. Applying Mathematics and Statistics in Information Technology	IST29	3P+2V	6
4. Safety and Security of Information Systems	IST30	3P+2V	7
5. Final paper	ISTZR41	-	5
- Total: 5 Subjects			30

Information Systems and Technologies 240 ECTS – four-year study

I year – I Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Discrete Mathematics	IST1	3P+2V	6
2. Introduction to Programming	IST2	3P+2V	6
3. Introduction to Information Technologies	IST3	3P+2V	7
4. Introduction to Operative Systems	IST4	3P+2V	6
5. English Language	IST5	3P+2V	5
- Total:5 subjects			30

I year – II Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Introduction to Databases	IST6	3P+2V	7
Architecture and Organization of Computer Systems	IST7	3P+2V	6
3. Programming Methods and Abstractions	IST8	3P+2V	6
4. Information Systems in Office Management	IST9	3P+2V	6
5. Algorithms and Structure of Data	IST10	3P+2V	5
- Total: 5 subjects			30

II year – III Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Data Analysis	IST11	3P+2V	6
2. Digital Economy	IST12	3P+2V	6
3. Business Informatization	IST13	3P+2V	5
4. Principles of Software Engineering	IST14	3P+2V	6
5. Program Tools	IST15	3P+2V	7
Total: 5 Subjects			30

II year – IV Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Modeling of Business Rules	IST16	3P+2V	5
Basics of Computer Communication Technologies	IST17	3P+2V	6
3. Object-oriented Analysis and Design	IST18	3P+2V	7
4. Basics of E-Business	IST19	3P+2V	6
5. Database Management Systems	IST20	3P+2V	6
- Total: 5 Subjects			30

III year – V Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. IT Management	IST21	3P+2V	6
Server Operating Systems and Administration	IST22	3P+2V	6
3. Projecting Information Systems	IST23	3P+2V	7
4. Information Systems Management	IST24	3P+2V	6
 5. Optional Subjects (Student chooses one subject): Server Virtualization Services Establishing Reliable Information Systems 	IST25 IST26	3P+2V	5
- Total: 5 subjects			30

III year – VI Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Content Management Systems	IST27	3P+2V	6
Administration and Managing Computer Networks	IST28	3P+2V	6
3. Applying Mathematics and Statistics in Information Technology	IST29	3P+2V	6
4. Safety and Protection of Information Systems	IST30	3P+2V	7

5. Artificial Intelligence	IST31	3P+2V	5
- Total: 5 subjects			30

IV year – VII Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Objective oriented programming	IST32	3P+2V	7
2. Web Technologies	IST33	3P+2V	6
3. Computer Graphics and Digital Media	IST34	3P+2V	5
4. Computer Infrastructure	IST35	3P+2V	6
5. Projects Management	IST36	3P+2V	6
- Total: 5 subjects			30

IV year – VIII Semester

Subjects	Subject's code	Lectures and practice	ECTS
1. Integration of Information Systems	IST37	3P+2V	5
Innovations in Information Systems Development	IST38	3P+2V	5
3. Management Information Systems	IST39	3P+2V	5
4. Business Intelligence	IST40	3P+2V	5
5. Final paper	ISTZR42	-	10
- Total: subjects			30

VIII. Study program: Business Economics

Study course: Management

The basic principle of the program is the education and training of personnel required in economicsrelated businesses in all structures of economy including: service sector, administration, cultural sector and others. The study program is open and fully adjusted to the mobility of students, giving them a lot of space and access to studying and learning as well as the services needed. Also, it offers full mobility and exchange of teachers and scientists in accordance with the Bologna Process. The program can be compared with similar programs from abroad, it uses ECTS credits and is conducted in English Language. By graduating at College "Ceps- Center for Business Studies" economists from the study course Management will acquire basic competences based on the entire business and economics education that consist of ground theoretical, methodological and applicable knowledge in the field of business economics (business and economics analysis, synthesis, forecasting of methods and consequences, business function in profitable and non-profitable organizations operating). Specific competences are based on a highly skilled and professional qualification in the field of management of business functions and procedures, as well as the information management in accordance with the particular program of the study course. Throughout all subjects, explicitly or implicitly, the students are guided to the application of business etiquette, as well as the professional and social responsibility of their vocation. The students are educated in the direction of developmental logic of economic and business aspects in the context of science disciplines and practical action in business environment.

Language conducted in the overall study process is English.

Undergraduate Study Program Business Management, study course Management, lasts three academic years (6 semesters). Upon completion, the graduate is awarded with the title: Bachelor of Business Economics - Management with a total of 180 credits.

Undergraduate Study Program Business Management, study course Management, lasts four academic years (8 semesters). Upon completion, the graduate is awarded with the title: Bachelor of Business Economics - Management with a total of 240 credits.

Degree titles will be in accordance with the Law after entering into force.

The Undergraduate Study Program Business Economics Curriculum, study course Management, lasts three academic years (6 semesters). Upon completion, the graduate is awarded with the total of 180 ECTS credits.

Location and space for work of "CEPS" High College

"Grupa Centar" gained the leading position in the area of its basic activity, education, primarily by choosing good locations and spatial conditions that we ensure for each of the institutions, and that also happened this time. In the center of Kiseljak in a magnificent ultramodern building, adapted for work of the higher education institution with related facilities that offers, parking area and so on, we provided workspace for "CEPS" High College at the address Josipa Bana Jelačića bb.

The position of our "CEPS" High College is ideal, because it is located 35 minutes drive from the capital Sarajevo as a center of cultural, sports and business activities in BiH.

Apart from the modern exterior visual identity, the space itself, that is the building of "CEPS" High College gives this higher education institution an additional value, with modern equipped amphitheaters, halls, computer rooms, space for learning and relaxation, gives the privilege of facilities provided to students in extracurricular activities, such as cafeteria, student restaurant, bank, parking lot, and all that with the beauty of the peaceful environment where students and teaching personnel spend their time, etc.

In order to meet pedagogical standards and norms for higher education institutions, adequate surface area is ensured, according to the standards for construction and equipping of the space of higher education institutions, and all the laws, rules and technical regulations in construction and other areas important for work and stay in the school area.

The very structure of the space is provided for the teaching process, and sanitary, health and hygiene and other conditions are provided, as well as other living conditions in terms of cubature, light, temperature, functioning, safety of students, teaching personnel and visitors.

Library

The library fund of "CEPS" High College contains all titles of professional books, manuals and magazines in the areas of transport, the field road transport, in the areas of management, accounting and finance, management of public sector and administration, from other publishers, and the library is enriched with its own publications.

The library include the student reading room and the classroom equipped with computers and the space for studying and reading.

It is a closed-type library, services are available exclusively for teachers and students of "CEPS" High College, but students and teachers can continue to use the library after the termination of student status or teacher status in this institution.

Also, access to electronic library for students and teaching personnel is ensured so that they could better prepare for the teaching activities.

Students about us



Ana LučićBusiness economics, 2nd year
Finance and accounting
Pale, RS

"I accidentally found out about CEPS and I was impressed with the work in small groups, with interactive teaching. In studies I learned how to look at the strength of company, the strength of product, and the entrepreneurs themselves, and how to analyze information about market situation and competition and to build market advantage using it."



Amar Smailbegović Business economics, 3rd year Finance and accounting Breza, FBiH

"I was looking for a faculty where it is not required to learn the books by heart, but where I will be able to acquire applicable business knowledge. I saw myself in the business world. After talking with my friend who enrolled in "CEPS" and my own inquiry I realized that this is the school that will give me what I want."



Elma Halilović Transport, 1st year Road transport Ilijaš, FBiH

"I've loved when the teacher pays attention to me, transfer knowledge, work with me and direct me, and that's what I got at "CEPS". Excellent teachers who give practical examples in lectures are priceless for me. Not only that I acquire new knowledge at "CEPS", but I work on my self-confidence thanks to the teachers who encourage me and believe in my success. What I appreciate most is the fact that I am a proud student here, and not just a number."



Miroslav Protić Energetics, 1st year Energy plant maintenance Velika, RH

"I want to tell you that the conditions of studying at "CEPS" are great. The relations of professors and students are extremely good. They are available to students. I would also like to praise the work of all employees here, especially student service."



Darko Džakić Transport, 4th year Road transport Banja Luka, BiH

""CEPS" High College organizes studies that are worth traveling hundreds of kilometers. It's something new, different, special! It will change your view of education."



Lejla OlevićBusiness economics, 2nd year
Management
Sarajevo, FBiH

"During classes you feel like you are a part of the team, because of the environment and opportunity to participate in many projects. The curriculum keeps up with the times, there's no dull learning, explanations are based on practical examples and real life situations. "CEPS" made my study interesting, motivated me to progress, accomplish extraordinary results and achieve my goals."



Ivo Bleko Security studies, 1st year Criminalistics Široki Brijeg, FBiH

"I chose "CEPS" because of good cooperation with professors. Many professors help us out and give us the additional information that cannot be found in the books, give a lot of practical examples and try to make the complex materials interesting, which is an advantage of this higher education institution in relation to others in the region."